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# ALL HANDS



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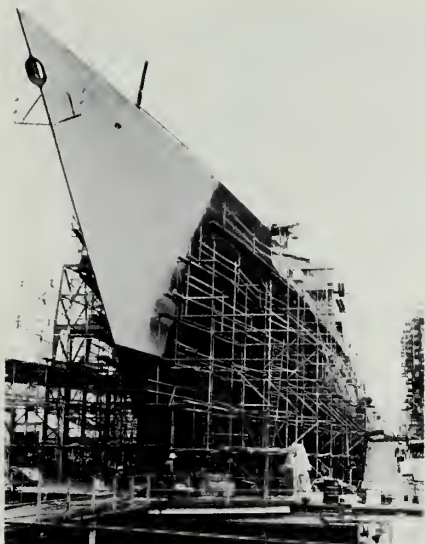
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Below: Aviation Boatswain's Mate 1st W. B. Doherty gives the launch signal to an AV-8A on board the USS Guam (LPH 9) in the Mediterranean. These are the same planes which took part in an aerial salute marking the 13th anniversary of Kenya in December. (Photo by PH1 C. V. Sneed.)





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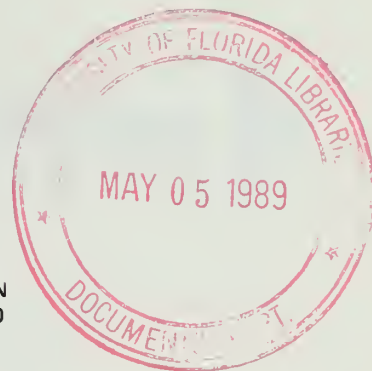


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# ALL HANDS

MAGAZINE OF THE U.S. NAVY— 54th YEAR OF PUBLICATION  
JANUARY 1977

NUMBER 720



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# Currents

## Tomahawk Missile

**Sets Flight Duration Record** ● Cruising for an hour and 47 minutes recently over the Pacific Missile Sea Test Range, a Navy Tomahawk Missile set a record for cruise missile flight duration. The missile was launched from an A-6 aircraft and subsequently was guided by self-contained navigational and guidance system. Tomahawk can be launched from submarines, surface ships, aircraft and sites on land.

## Navy League Award

**Nominations Due February 15** ● Nominations for Navy League awards for exceptional performance are due at the organization's headquarters by Feb. 15, 1977. The league expects to honor nine Navy and Marine Corps officer and enlisted top performers and select a 10th recipient from either the retired Navy and Marine Corps or civilian government ranks. Nomination details are in SecNavInst 1650.34.

## Navywide

**Examinations for Petty Officers Third Through First** ● The February Navy-wide examinations will be held on the following dates: Petty Officer Third Class, Tuesday, February 8; Petty Officer Second Class, Thursday, February 10; and Petty Officer Third Class, Tuesday, February 15. Examination dates have been modified for this cycle only, so that commands may submit and process E-3 and E-4 performance marks for the period ending Jan. 31, 1977. See BuPersNote 1418 of 26 Nov. 1976 for complete eligibility requirements.

## New Requirements

**for Accelerated Advancement Set** ● Eligible "A" School students whose classes convene after Dec. 1, 1976, will have to wait four to eight months after graduation for accelerated advancement to E-4. Under the new accelerated advancement program, those "A" school graduates eligible for advancement to E-4 will be promoted after the waiting period and upon approval of the commanding officer of the unit to which they are assigned. Selectees for accelerated advancement under this program who are serving in paygrades E-1 and 2 may still be promoted to E-3 upon graduation from "A" school. To be eligible to receive accelerated advancement to E-4, the candidate must sign a service record entry stating he/she will serve at least five years' total active service and a minimum of two years' active service from the date of advancement to E-4. BuPersNote 1430 of 12 Nov. 1976 has the details.



### **SRB Bonuses**

**For Boiler Repairmen and Boiler Technicians** ● Boiler Repairmen (BR) and Boiler Technicians (BT) who reenlist on or after December 1 can look forward to increased reenlistment incentives. The SRB level for BTs and BRs with three to six years' service will be increased from level five to level six. This means a BTSN with four years' service reenlisting for two years, could receive \$4,906, instead of the previous \$4,755. Also, members with six to ten years' service will be increased from level three to level five. Details are contained in NAVOP 148/76.

### **UNITAS XVII**

**Ends for Navy Ships - Aircraft** ● After more than 24,000 miles of steaming and 350 individual training exercises, Navy ships and planes returned to their home ports following UNITAS XVII exercises with the major maritime nations of South America. This marked the first year a nuclear-powered submarine- USS Gato (SSN 615)- accompanied the international flotilla as it circumnavigated South America and transited the Strait of Magellan. The navies of South America participating included Argentina, Brazil, Chile, Colombia, Peru, Uruguay and Venezuela.

### **Space Shuttle**

**Applicants Sought By BuPers** ● About 90 Navy people will be able to compete with civilian and other military applicants for 30 NASA Space-Shuttle positions this year. The Space Shuttle is a reusable spacecraft that will land like an airplane. It will perform a variety of missions such as deploying and retrieving satellites and operating specialized laboratories. Any Navy member interested in applying may get information on program requirements and application procedures from the Bureau of Naval Personnel or see BuPersNote 1331 of 10 October 1976.

### **Quick-Acting**

**Sailor Decorated for Thwarting Holdup** ● A Navy petty officer received the Navy Commendation Medal for foiling an armed robbery attempt recently at the Pearl Harbor Credit Union. Boiler Technician First Class Marvin T. Hill also received a \$200 cash reward from the credit union for his heroism- \$100 of which was reimbursement of his own money lost in the robbery. Hill was waiting to make a deposit when the holdup happened. Two armed men drove their motorcycle to the outside deposit window and promptly shoved a sawed-off rifle into Hill's ribs while ordering the teller to turn over money. Hill knocked the rifle to the ground and in the ensuing struggle, two shots were fired, but no one was hit. Hill put the robbers to flight- one on foot, the other by bike. No money was stolen other than Hill's deposit. the bandits were later arrested. Hill said, "I was scared to death."

# PERRY

## COMMODORE WITHOUT A FLEET



OLIVER H. PERRY.

Commodore Oliver Hazard Perry had a problem.

During the War of 1812 he was tasked with securing Lake Erie against the British fleet. No easy assignment, particularly since Perry had no ships, few men and even less ordnance.

But Perry, in a very short time, saw that the ships were built, the men found and trained and ordnance stocked. A surprised British fleet was soundly defeated on Lake Erie.

Perry's ingenuity, economy and success as a naval tactician are but a few reasons why his name graces the first of a new class of Navy guided missile frigates (FFG).

When *Oliver Hazard Perry* (FFG 7) was launched recently in Bath, Maine, the characteristics which served Commodore Perry at Lake Erie were much in evidence. Like the lead ship's namesake, this class of over 50 FFGs will combine economy with effectiveness on the high seas.

The FFG's role is not new: escort and protect under-way replenishment groups, amphibious forces, and military and mercantile shipping against submarine, aircraft and surface antiship missile threats. That's a complex task that must be accomplished in an age of restrictive budgets. But *Perry* is no ordinary ship.

Consider economy and efficiency. Commodore Perry was forced to go to sea with only about half the men needed to operate his ships. Today's FFG will carry a

crew about two-thirds the size of a comparably sized DDG-2 class destroyer. But the parallel ends there—while Commodore Perry couldn't *get* more men, FFG-7 *needs* no more men.

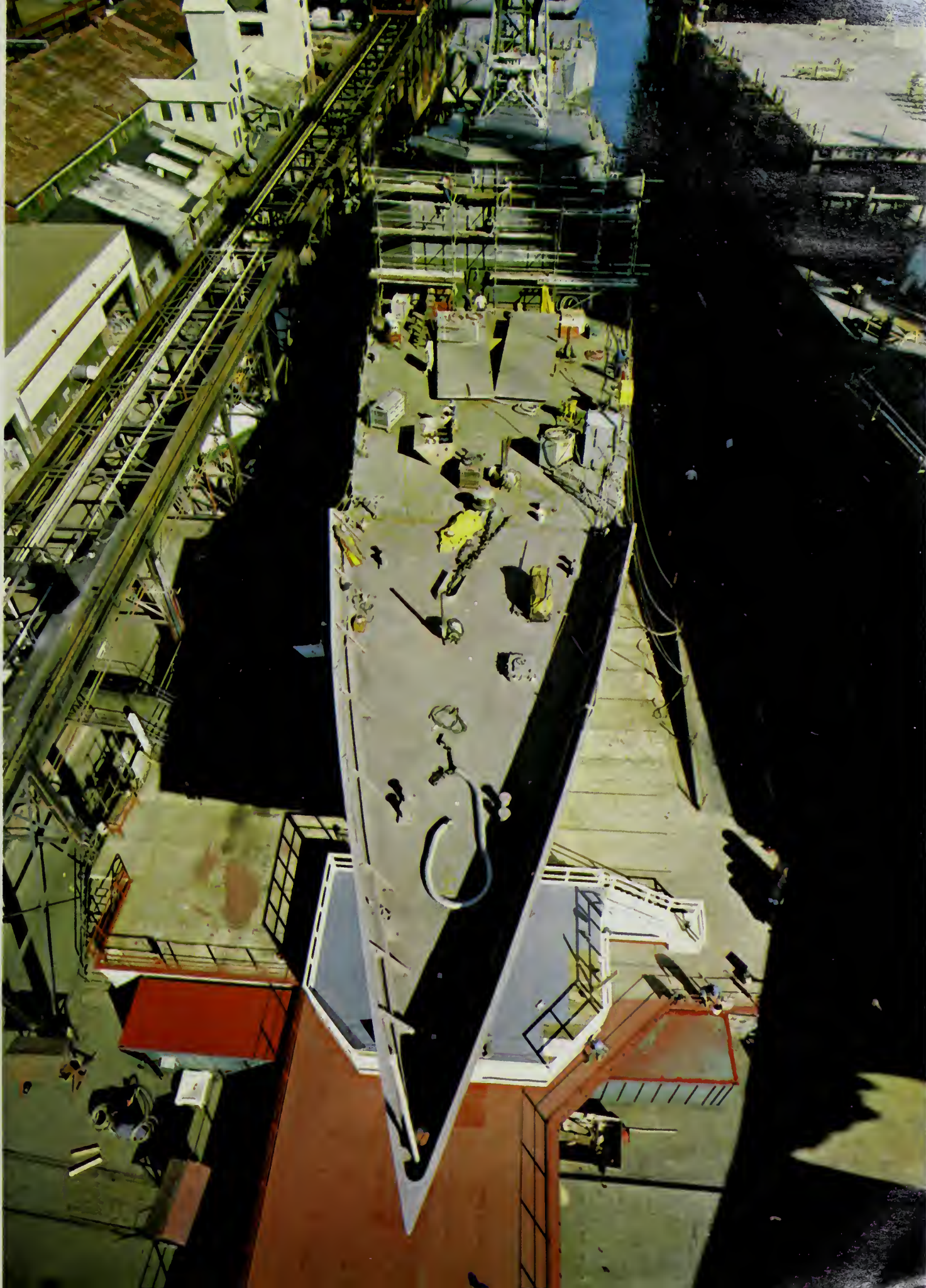
*Oliver Hazard Perry's* smaller crew size is made possible by the use of highly automated machinery systems and carefully arranged living and working spaces. For example, nearly all machinery systems are automatically controlled from an enclosed, soundproofed, air-conditioned central control station. Because of this, the engine room and auxiliary machinery rooms will be unmanned, monitored only by a roving watch.

Two other arrangements also permit a smaller crew. First, many of *Perry's* shipboard systems will be doing double duty. For example, waste heat from the diesel generators is used to operate the distilling plant and to provide the crew's hot water.

Second, living and working spaces are arranged for maximum efficiency. All administrative functions are gathered in the central office complex, a combination of personnel and supply activities that reduces the number of clerical personnel. A bonus for the crew is that living spaces are more comfortable, being located closer amidships than is usual on ships of comparable size.

During the War of 1812, Commodore Perry had one thing going for him that a modern-Navy commander does not. He had a good idea what tactics and weapons the British could be expected to use at Lake Erie, and he realized that their choices were somewhat limited. Today's FFGs are being built to counter flexible enemy









forces whose capabilities could change radically within their expected lifetime.

*Perry* has been designed with this potential change of mission in mind. Simplicity of design, modular construction and easy access to all machinery and armaments will allow this class of ships to keep pace with the ever-changing job of keeping the sea-lanes open.

Current plans call for *Perry* and her subsequent sister ships to be armed with *Standard* antiair and *Harpoon* antiship missiles. She will also carry a rapid-fire, 76mm anti-air and antiship gun and CIWS. Two light airborne multipurpose system (LAMPS) helicopters and the SQR-19 passive towed array sonar will give *Perry* frigates a long-range, antisubmarine warfare punch.

The FFG-7, with her twin gas turbine engines, controllable pitch propeller and many other sophisticated refinements, represents a dramatic change from shipbuilding in the days of Oliver Hazard Perry. The basic need to produce a fleet of sufficient size and strength to counter an enemy still remains. Commodore Perry might not recognize today's shipbuilding techniques used on the ship bearing his name, but he would certainly feel at home with the philosophy behind that construction. ⚓

(Compiled from a story by Michael B. Trainor and R. Bruce Montgomery of SupShip, Bath, Me.)









# Toe-tapping Troubadours





*"I want an excitement in this band, a spirit so intense that anyone can feel the vibrations and know something is happening. I want the audience on the edge of their chairs, hearts thumping and turned on with excitement. I want them so totally involved that nothing exists for them except the Navy Band."*

*Commander Ned Muffley*

*Officer in Charge, U.S. Navy Band*

BY LCDR DAVE KISHIYAMA,  
USNR-R, & JO2 DAN WHEELER

Those words, worthy of a John Philip Sousa, will not seem an overstatement to anyone who has heard the music of the United States Navy Band. Known to millions as "The World's Finest," the band has earned its motto, which was enhanced by appearing along with the USNA Drum and Bugle Corps in the inaugural parade.

That's pretty much the way it has been throughout its 51 years. Entertaining a national and worldwide audience that numbers in the millions by way of radio, television, record albums and on-stage performances, the band through its music has become one of the Navy's foremost ambassadors of goodwill.

"We are also a prime community relations vehicle," CDR Muffley said. "We take the music to the public and show them that their U. S. Navy is built on professionalism. This directly relates to our primary mission of recruiting and retention—that's what we're here for."

"Here for" usually means "there for" as far as band members are concerned. With its two annual tours, one in the fall and the other in the spring, the Navy Band performs 90 days on the road staging two shows daily, seven days a week.

During the Spring 1976 tour, for example, the band traveled 11,000 miles, played 92 concerts in 53 cities, and reached a total audience estimated at more than 125,000. Additionally, in support of the Bicentennial, the various units which make up the entire Navy Band played 2337 performances in an 18-month period.

Invariably, even after hours of traveling, the band's performance in concert is flawless—a remarkable feat considering the frequency of transportation and inevitable "incidents."

(Once, while en route to a gig in New York, one of the band's charter buses was impounded by state troopers for displaying im-

proper licenses. Facing an approaching deadline, all the luggage was hurriedly unloaded from the wayward vehicle and reloaded onto another charter.)

One might imagine that travel time is spent making merry music like that depicted in the "Big Band Era" movies—a mobile concert traveling down the interstate. Not necessarily so. Travel time is rest time and as such considered sacred to some members. Others prefer a more lively environment. But the Navy Band has found a happy solution to this apparent conflict.

When on tour, the band travels in two buses—one is called the "Saints" and the other the "Sinners." Those who ride in the "Sin-



# Toe-tapping Troubadours

ners" bus prefer a grand time telling jokes, singing and skylarking. The "Saints," on the other hand, are a quiet lot. Going aboard their bus is like walking into a public library—even noisy breathing is frowned upon.

Personality differences such as this are an asset rather than a liability for the Navy Band. Differing tastes in everything from leisure activities to musical preferences account, in part, for the formation of various specialized musical groups within the overall band. These bands, performing in their own musical idiom, allow the Navy to extend its musical message to a large cross-section of audiences who also have somewhat diverse tastes in music.

Various components of the band include:

- **CONCERT BAND**—the largest group in the Navy Band's touring organization made up of 55 to 65 musicians out of 171 enlisted members and three officers. Within it are a brass quintet, a woodwind quintet and a saxophone quartet. It is this band that performs regular concerts in Washington and the two annual tours to designated sections of the country.

- **PORT AUTHORITY** — the Navy's answer to today's popular rock sound. Composed of bass, guitar, drums, trumpet, saxophone, Latin percussion and keyboards, Port Authority has performed everywhere from the White House to ghetto neighborhood concerts.

Formed in 1970 when it was realized that rock music had a distinctive cultural importance to youth, this band is a far cry from the fife-and-drum image of the early military bands. Playing rock, jazz, top 40, Latin and soul, this group re-

lates to today's young people. Much of the music is original—composed by members—but their concerts also feature hits and up-to-date arrangements of rock classics.

Port Authority has been invaluable in recruiting and retention and plays for Navy people and civilian audiences worldwide. "Because of this type of music," said its leader, Chief Musician Mike Beegle, "I feel I have a closer rapport with young people than I would otherwise have."

- **COMMODORES**—a big (20 strong) band-pop-jazz-rock ensemble which has been in constant demand. Developed in 1969 as a dance band, the Commodores





brought an added dimension to the Navy Band by playing many of the old standards along with current pop tunes.

"Everyone here is a professional and is playing the type of music he likes," said Senior Chief Musician Jeff Taylor, director of the group.

• **SEA CHANTERS**—this 15-member, all-male singing group maintains rapport with audiences of any age and, according to Chief Musician Joe Doogan, first tenor, it is "unique in the world's navies." The Sea Chanters, naturally, specialize in sea chanties—those folk songs of the sea, but they also sing traditional ballads and songs to fit almost any occasion.

Performing in a composite uniform which represents the diverse shipboard uniforms worn by the young Navy of 1812, the choral group may appear with the concert band or alone in programs from sacred to secular, contemporary to classic or anything in between. They're under the direction of Senior Chief Musician Robert Sisson.

• **CEREMONIAL BAND** — a 27-piece unit that is the core of the Navy Band's primary mission of providing music for ceremonies and support functions in and around the Washington area, especially at the seat of government. The group, under the direction of Senior Chief Musician Art Accardo, performs at ceremonies honoring foreign heads of state and representatives, or American dignitaries during official functions at the White House, Pentagon or State Department.

The band is also used to provide musical support for monthly command reviews including retirements and changes of command, those events incident to patriotic occasions such as wreath-laying cere-

monies at many of the historical monuments in Washington, and is on daily standby for funerals at Arlington National Cemetery.

• **COUNTRY CURRENT** — a seven-member group specializing in America's grassroots' music. It is the only group among the major military bands that caters to music considered native American.

"Our music appeals to all age groups and is being accepted nationwide," said Musician First Class Joe Barnes, one of the band's members. One of the most highly acclaimed groups in its category, Country Current recently scored a first for the Navy as the only military band ever to appear live on the Academy of Country Music Awards Show.

Regardless of which group within the U. S. Navy Band a musician aspires to, professionalism is the key to becoming a member. Chief Warrant Officer David Kunkel, operations officer for the band, said that among the Navy Band members there are "13 to 15 master's degrees and one Ph.D." Additionally, 80 per cent have college degrees. But the degree alone doesn't carry enough weight to gain entry.

"Our standards are so high," remarked Senior Chief Musician Jere Wallace, the band's announcer and public affairs officer, "that only a few are even invited to audition." Selected musicians, usually from colleges and universities, and some from the fleet, are invited to come to the Washington Navy Yard at their own expense for a tryout. Only four or five auditions are held monthly and preference is given to talent from the fleet.

The musician who passes this hurdle can then earn a spot on the band, if one's available. A mini-

mum E-6 rate is attained although those entering from civilian life must still complete boot camp. A member's tour of duty with the band is set at three years, but those wishing to remain are allowed to do so as long as they are qualified.

As a result of this careful screening, the Navy Band has consistently maintained high standards. In 1935, the American Bandmasters Association recognized the Navy Band as the outstanding band in America and bestowed upon it the famed motto "The World's Finest." No other military band has been so honored.

"They're the best in the world," declared CDR Muffley. "We are the show people of the Navy and we have a lot of talent here. Symphony musicians generally don't think of us as on their level, but we are. This is my fourth year to be invited by Arthur Fiedler to guest-conduct the Boston Pops and each year I take a soloist with me. They have all received the same acclaim —'Bravo, bravo!'"

Though the band's members are recognized professionals, they still find time for a few lighthearted



# Toe-tapping Troubadours

pranks. Once while en route to Indiana, the band passed through a small town in Ohio called Gomer. Proudly displayed above a solitary grocery store was a sign stating that Web Bumford was its owner. For some mischievous reason, the band took a liking to Bumford without ever meeting him and decided to send him cards and letters throughout the tour. Poor Mr. Bumford received a mailbox-full of cards and letters daily from people he did not know and never expected to meet.

After the concerts in Indiana, the band headed back to Ohio late in the evening for a scheduled concert

in Gomer the next day. Upon arriving a few miles from Bumford's home, they telephoned him to say that the "U. S. Navy Band was holding a parade in his honor" and they would be marching by his house at about 11:00 that same evening.

When the band arrived, Bumford and numerous friends greeted it. Tacked to his home's facade were every letter and card he had received. A buffet had been prepared in the family room. Of course, an impromptu concert followed, with Bumford — a very friendly 70-year-old — guest con-

ducting with great enthusiasm.

For years thereafter—as regular as Santa Claus—the Navy Band received a Christmas card from Web Bumford, an unpaid Navy recruiter worth his weight in goodwill.

There are of course many such fun moments, but it is primarily a love of music and its lifelong study that draws these dedicated musicians together. "We eat, drink and breathe music," CDR Muffley asserted.

It's a diet that the Navy—and music lovers everywhere — are happy to live with! ♪







# **‘blow dem horns’**



With less sleep than a midwatch in between, the Naval Academy Drum and Bugle Corps recently performed for 7000, then for millions.

The 88-member Corps came to Long Island on Thanksgiving Eve at the request of Navy Recruiting District, New York, for a half-time performance at the New York Nets/San Antonio Spurs basketball game.

Following a standing ovation from the 7000 fans, the Corps boarded buses and headed for New York and the 50th annual Macy's Thanksgiving Day Parade.

Five-fifteen in the morning comes pretty early for most people. But at that time the groggy midshipmen

found themselves at 34th St. and Broadway, rehearsing for a two-and-one-half-minute routine for the television cameras.

After rehearsal and a short breakfast, the midshipmen were hustled uptown to their formation location—and a two-hour wait for the parade to begin.

The two-and-one-half-mile parade viewed by millions around the world, capped a hectic 24-hour schedule for the Corps. And it gave the men and women of the Naval Academy Drum and Bugle Corps a chance to play Anchors Aweigh up close—for the West Point Glee Club. ⚓



# The MacKenzie

It's only natural that a plank owner or two would show up at a ship's decommissioning. The odds make it far less likely, however, that a "bottle holder" also would be on hand.

By way of clarification, we hasten to add that a "bottle holder" is the ship's sponsor who still retains the champagne bottle used to commission the ship. This in spite of the more than 30 years that have slipped by the boards from the time the ship first hit the water till she was struck from the rolls.

"I still have that bottle," Donna MacKenzie Renard said last month at the San Diego decommissioning of the destroyer *USS George K. MacKenzie* (DD 836). As a nine-year-old on May 13, 1945, at Bath, Maine, Donna launched the destroyer named for her father. Lieutenant Commander MacKenzie, posthumously awarded the Navy Cross, lost his life as skipper of the submarine *Triton* (SS 201) in the Southwest Pacific in 1943.

Today the wife of a Navy officer, Mrs. Renard has

kept in close touch with the destroyer as she steamed more than a million miles in the last 31 years. Her husband, Captain J. W. Renard, drew the *MacKenzie* as his first duty out of the Academy in 1955. He, therefore, is included in the list of more than 6,000 officers and men who served in the ship over the past three decades.

Also present at the San Diego ceremony was Mrs. Renard's aunt, Jean MacKenzie, now a retired chief aerographer's mate. She joined the Navy—serving 23 years—following the sad loss of her brother in 1943.

In the May 1976 issue of *All Hands* we featured *USS MacKenzie* and said, "She's Got Heritage." Little did we know how much heritage.

Out of commission and off the rolls, the destroyer will continue to serve the Navy in an important way. She is slated to become a target ship for submarines in training. Somehow we feel the late LCDR MacKenzie would have liked that. ⚓





Above left: Nine-year-old Donna MacKenzie at the 1945 launching of the destroyer named for her hero father.

Right: Donna MacKenzie—now Mrs. Renard—at the recent decommissioning of DD 836 in San Diego. She is flanked by her husband, CAPT. J. W. Renard, and her sister, Jean MacKenzie.



# Midnight oil and no naps at

STORY BY JO2 DAVIDA MATTHEWS  
PHOTOS BY JO3 D. HOCH

They come from all over the country, their backgrounds as diverse as their reasons for entering the school. The 280 students who make up the class of '77 at the Naval Academy Preparatory School (NAPS), Newport, R. I., are bound by a common goal—entrance into the Naval Academy.

Enthusiasm and determination are reflected in their faces, their voices.

"I spent two years in the fleet as an enlisted man," said Tom Homan, a midshipman candidate at NAPS. "I know the Navy is what I want and for me, that means the Naval Academy."

Last year, Anthony Barnes was a high school student in Savannah, Ga.; now he marches with the best of them. "I considered going to a regular college, but when I decided to go Navy, it had to be the Academy."

Each of these young men was motivated to become a naval officer, but his Scholastic Aptitude Test (SAT) scores were too low to meet the Academy's entrance standards, just one reason a student enters the NAPS nine months of training.

"Being out of school for two years and not using what I had learned affected my score," said Homan, a Pennsylvania native. "NAPS is a refresher course so I can bring that SAT score up."

"In my high school," Barnes explained, "the emphasis was on sports. The academics part I learned but didn't retain past the exams. So, I have to relearn a lot of the material and, more importantly, develop my study habits."

Many of the students at NAPS could qualify for entrance into the Academy but they entered NAPS to increase or strengthen their qualifications. For others, the school is an opportunity to decide if the military is the

life they want.

"The prep school provides an avenue for deserving Navy and Marine Corps enlisted people, regular and reserve, to get into the Academy," explained the school's director, Commander R. H. Schmidt. "We do this by strengthening their academic backgrounds and preparing them militarily, physically and mentally."

Thirteen enlisted men made up NAPS' first class back in 1915. The school is the Navy's third oldest, antedated only by the Naval Academy and Naval War College.

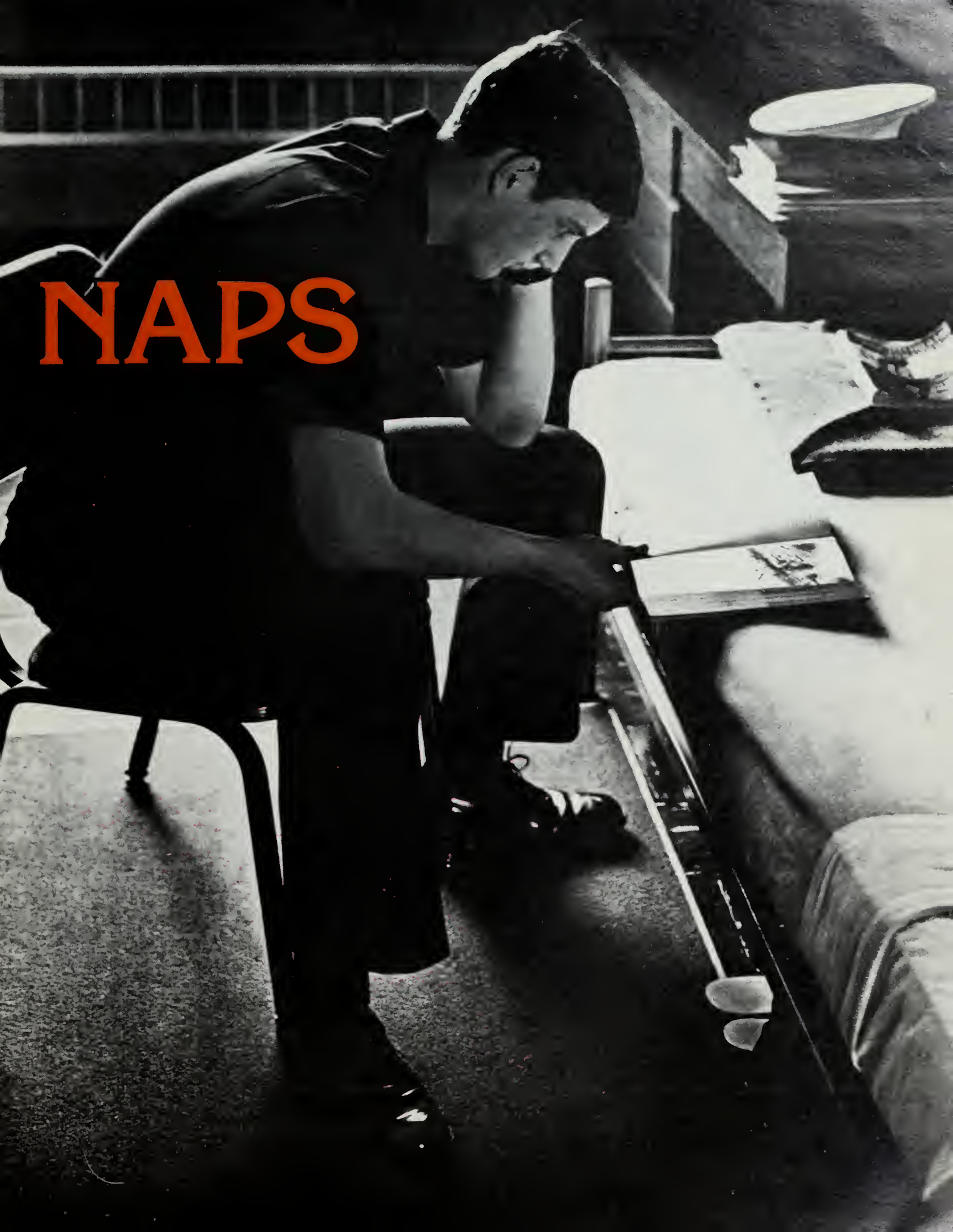
Over the past 60 years, NAPS has changed sites several times, moving between Norfolk, Va., Bainbridge, Md., and Newport, its home since 1974.

The school is located on the tip of a small peninsula jutting into Narragansett Bay, an area noted for its scenic countryside and coastline. One student describes the Newport area as "good liberty," a phrase that needs no further clarification. But liberty for the students is but a brief weekend respite before they return to the rigors of the classroom.

Classes start at 0800. The midshipmen candidates are up and at it long before that, getting some of the military training CDR Schmidt spoke about. By the time the sun chases away the early morning mists over the bay, the students have cleaned their quarters, stood inspection, attended a drill class, eaten breakfast and are on their way to morning muster. For the enlisted "regulars," the routine is reminiscent of boot camp training. But, for the reservists, it's a whole new world.

The reservists are civilians enlisted into the Navy for the sole purpose of going to the prep school. If, for any reason, they don't make it through the school, or aren't accepted at the Naval Academy, they are given the option of finishing their enlistment or returning to civilian life. This arrangement has





NAPS

earned them the nickname of “invitees” from the other students.

“But you have to admire them,” stated one fleet type. “It’s hard enough to keep up with the school work. Learning this military stuff at the same time makes it rough.”

“One of the hardest parts for me,” said Andrew Swoope, a reservist from Chicago, “was accepting the idea of having someone tell me to get out of my bunk while it was still dark out so I could make sure my bunk was made up and my shoes were shined. I can see now that it’s all a part of developing discipline.

“But those first few weeks, it didn’t make any sense to me. A lot of the ‘invitees’ thought about dropping out then, but it only strengthened my resolve to see this through.”

A student can expect to be enrolled in two mathematics classes, one or two English classes and one science class per day. The level of instruction is determined by a battery of tests given upon the student’s arrival. “The classes are paced to the individual’s needs,” explained CDR Schmidt. “If a student is deficient in mathematics, for example, or if his reading ability isn’t what it should be, we can compensate for that. We concentrate and focus on that need.”

The curriculum—taught by both civilian and active duty military

Ron Miller, a NAPS calculus instructor, enjoys a light moment with the class. Though the curriculum is demanding, there’s still some levity.



instructors—includes algebra, physics, chemistry, trigonometry, linear algebra, functions, composition, rhetoric, reading and vocabulary drill. “The Academy works closely with BuPers to ensure we get quality instructors,” said Mr. W. F. Nolan, academics director for the school. “The classwork schedule here is so concentrated that the instructor has to care and be willing to give that extra effort. It’s that attitude we look for in our instructors.”

Lieutenant Jay Parker has taught trigonometry at NAPS for the past three years. He has a degree in physics and is working on a master’s in education. “I think it’s the students’ motivation that impresses me most. I’ve taught in civilian schools and you don’t see much of that. Here, they know they need to learn this stuff—their future depends upon it. Another thing that distinguishes them from their civilian peers is the self-discipline they’ve developed through the military and physical training.”

Following the Academy’s concept that an informed mind is not all that is necessary to make a successful naval leader, the prep school places a great deal of emphasis on athletics.

Each “NAPster” is required to take part in some type of sports program. “We offer everything from basketball to water polo, so there’s something here for everybody,” said Mr. Art Markos, the athletic director. “We give the students physical fitness tests regularly to determine if any remedial training is necessary. We want them to be in top physical condition by the time they reach the Academy.”

The physical training was the only aspect of the school’s syllabus changed when the women arrived last year. The same ruling allowing women to enter service academies





Physical fitness and conditioning are not overlooked at NAPS. Here the prep students compete against a local team.

A newly arrived student tries on a combination cap—it'll fit much better later.



opened the doors to NAPS for females. Women midshipmen candidates are still required to participate in sports, but are prohibited from contact sports such as football, lacrosse, or wrestling. They can, however, act as managers for these teams.

There are nine women enrolled in the current class—four regular Navy, two reservists and three Marines. Kathy Washington was a seaman in the Boost program when the Academy was opened to women.

"I decided that if I'm going to

# So... You want

be an officer, I might as well go first class, all the way. I expected an attitude problem with the guys here, but it never materialized. All it took was for the men to get used to us being around and accept it."

Attending the prep school is no guarantee that a student will receive an appointment to the Academy. They must first receive a nomination for appointment from one or more of several sources. Based on figures of past classes, 65 per cent, or about 180 students in this class will receive appointments. Of that 180, 61 per cent of them will complete the four years and become officers.

This figure compares favorably with the completion rate of the other Academy students. "The purpose of the prep school is to bring these students up to the standards needed to enter the Academy," a spokesman for the Naval Academy said. "This percentage proves the school is successful."

As one instructor described NAPS: "Getting into the Academy is like opening a door into a whole new future. For enlisted people NAPS just oils the hinges on that door." ⚓

Interested in going to Annapolis? You must first meet basic eligibility requirements: be at least 17 years of age and not past your 22nd birthday on 1 July of the year you could enter the Academy; be unmarried and have no children; and be a U.S. citizen of good moral character.

So far so good. The next step is to get a nomination for appointment to the Academy. As a serviceman or woman, you have several sources of potential nominations, each of which should be pursued. The more nominations you receive,

the better your chances for appointment. For instance, the Vice President is allowed five people attending the school at a time, but nominates 10 per vacancy. That means you could be competing against 49 other people for one of those slots—that is, if you get nominated at all.

If they've been out of school for a while or if their high school curriculum didn't include some of the recommended courses (three, preferably four years of math, including geometry, trigonometry and advanced algebra; four years of





# to go to the Academy



English; two years of a modern foreign language; one year of physics; and one year of chemistry), Fleet personnel usually attend the Naval Academy Preparatory School, Newport, R. I., to increase their chances of receiving nomination and subsequent appointment. Check with your education office to ensure you meet prerequisites and apply through your commanding officer.

Here's a rundown on nomination sources available:

U.S. senators and representatives, the Delegate from the District of Columbia and the Resident Commissioner of Puerto Rico all have five midshipmen attending the Academy at any one time. It is not necessary to know the official personally. Apply directly to your representative and to both of your senators.

Children of career members of

the Armed Forces are eligible to compete for 100 Presidential appointments each year. Write to the Candidate Guidance Office at the Academy.

You can also apply for a Vice Presidential nomination. Apply to Office of the Vice President, Washington, D. C. 20501, before 1 September.

If you are a resident of Puerto Rico, Canal Zone, American Samoa, Guam or the Virgin Islands, your governor or delegate, as the case may be, can nominate you for appointment. Write to the appropriate official.

There are 85 appointments open to regular Navy and Marine Corps personnel. Apply initially through your commanding officer.

Reservists can compete for the 85 slots allotted to them by also applying through their commanding officers.

Children of armed forces members killed in action, or who died or have 100 per cent disability from wounds, injuries or disease received while on active duty are eligible, as are the children of service men or women, or civilians listed as prisoners of war or missing in action. Apply to the Academy.

There is an unlimited quota for children of Medal of Honor winners; the Naval Academy will accept these applications.

Sample letters for requesting nominations and other information are included in the Naval Academy catalog, which you can get by writing to Director, Candidate Guidance, U.S. Naval Academy, Annapolis, Md. 21402. You can also check with your education office, career counselor or the OpNav Instruction 1531 series for additional information. ⚓

# Grains of Salt

## Fixing the Speed of Light

BY LTJG BRUCE R. LIVELY

Fellow midshipmen nicknamed him "Sheeny Mike," and under that name he captured the welterweight boxing championship of the Naval Academy. Admiral John L. Worden—of *Monitor* fame—lectured him: if he wanted to be of real service to America he should give less attention to science and more to Naval gunnery. Yet this native German was to earn a faculty seat at the academy, fix the speed of light and lay the groundwork for Einstein's Theory of Relativity. In so doing, he became the first American to win the Nobel Peace Prize.

His name was Albert A. Michelson, and his story is one of the most notable in U.S. naval history.

Michelson was born near the Polish hamlet of Strelno in December 1852. He was just two years old when his family joined the swell of immigrants to America. His parents followed the fortune-seekers to Virginia City in Nevada Territory where his father opened a store.

In 1869, he took the examination for entry to the Naval Academy but the appointment went to another who tied Michelson's score.

Undaunted, Michelson set off for Washington to see President Ulysses S. Grant, hoping to become one of 10 presidential appointees. Grant was cordial, but his 10 appointments-at-large were already made.

Michelson then waited three days at Annapolis to see the Academy Commandant. When he gained an interview the news was bad—still no vacancies. Returning to Washington he boarded a westbound train and learned from a presidential messenger, just before departure, that Grant had approved the 11th appointment—Michelson.

The post-Civil War Naval Academy was torn between the old sailing Navy and a new emphasis on "high science," technology, and humanities. Michelson's scientific bent, and a corresponding weakness in more traditional skills, determined his fate at Annapolis. He led his class in optics and drawing, placed second in heat and climatology, and shone in boxing and fencing. Yet he finished fifth to last in seamanship and its practice. Overall, he ranked ninth in the order of merit or class placement.



Portrait by Cliff Young shows Ensign Michelson at work on his experiment for determining the speed of light.

Despite the gibes of veteran officers that his scientific fantasies were inappropriate for a line officer, Albert profited from his stay at the Academy. After graduation he suspended scientific studies during his two-year training cruises. He served in five ships on this tour—USS *Monongahalea*, *Minnesota*, *Roanoke*, *Colorado*, and *Worcester*. After his promotion in 1875 to the rank of ensign, Michelson joined the Academy staff as a temporary instructor.

Michelson made a discovery while at the Academy that ensured his international reputation as a physicist. His department head, LCDR William T. Simpson, suggested that he experiment with the vogueish new lecture-demonstration method to conduct a section on the speed of light. Albert scrounged some equipment from Navy surplus, but he had to invest \$10 of his own money for one critical mirror. With this and the cast-off materials, he measured this most important constant of nature more accurately than any previous scientist had. He was promoted in 1879 to the rank of Master (today's lieutenant junior grade), and given astonishing freedom to publish his theories. A May issue of *The New York Times* described the young prodigy as "a new and brilliant name" destined to adorn "the scientific world of America."

Despite the cooperation of the Academy, Michelson knew that a successful naval career required a variety



of assignments. Critical tours at sea and in command hardly interested him. Instead he requested a year's leave of absence to attend graduate school in France.

In Europe, Michelson won a grant from Alexander Graham Bell and designed the apparatus which was to inspire Einstein's later research into the idea of relativity. About the same time, Michelson invented the interferometer to measure submicroscopic distances. Scientists later used a variation of Michelson's instrument to measure the diameter of distant stars. (In 1913 Michelson was to employ a modified interferometer for his milestone experiments on the elasticity of the earth.)

Michelson accepted a professorship at Case School of Applied Science in Cleveland, Ohio, in 1881, and resigned his commission in April 1882. During the ensuing years he also taught at Clark University in Worcester, Mass., and at the University of Chicago. During this time he devoted himself almost completely to research, becoming immersed in experiments by day and entertaining himself by night at billiards, his violin and easel.

Prizes held little enchantment for Michelson. Yet he won nearly every honor given for scientific attainment. The Nobel Prize has been called the world's most prestigious award. Michelson's main concern upon winning it was how to use the \$40,000 stipend in his research.

Michelson refused to interrupt meaningful research to meet the mundane requirements of graduate degrees. The Naval Academy wasn't authorized to grant a bachelor of science degree until shortly after his death. Despite the lack of an "earned degree," many universities, both foreign and domestic, granted Michelson honorary degrees.

When the U.S. entered World War I, he was commissioned a lieutenant commander in the Naval Coastal Defense, and he transferred his entire research operation from Chicago to Washington. He devoted considerable time to developing new devices for naval use. Among these were his special binoculars which made it possible for American captains to detect enemy submarines at night, and his rangefinder which became standard naval equipment.

Returning to the Navy after 35 years was enjoyable, but the pesky intricacies of military discipline still baffled the 66-year-old scientist. On his first morning, the officer of the day greeted him with a stern, "Michel-

son, you're out of uniform. You should have a star on your cuff." Albert trekked to the tailor to get a star, and the next day a different officer reprimanded him for wearing it. Off came the line star, only to have the cycle repeat itself. Finally, Albert's wife advised that he invent a snapper star as the standard uniform for every bewildered officer who wanted to please all his superiors.

It gratified Michelson to aid in the war effort, but by 1919 he longed for his old laboratory. He was released from active duty on May 13 as a commander by Franklin D. Roosevelt, then Assistant Secretary of the Navy.

Five years later, Michelson accepted an invitation to speak at the Naval Academy. Before the lecture he took time to tour the expanding campus. But he recognized few landmarks. The old seawall where he had made the first experiments on the speed of light had been filled. Today, a modern science facility, Michelson Hall, occupies that site.

Michelson's death in May 1931 signaled the end of an era. The world of science had passed a milestone. The nation and its Navy had lost an uncanny genius and a devoted friend—"The Peerless Physicist of Annapolis." ↓

**A favorite pastime was billiards.**



R282104Z AUG 76  
 FROM: CNO WASHINGTON DC  
 TO: CINCLANTFLT NORFOLK VA  
 INFO: COMNAVSEASYS COM WASHINGTON DC  
 USS LITTLE ROCK (CG 4)  
 UNCLAS EFTO //N04700//  
 STRIKE OF USS LITTLE ROCK (CG 4)  
 A. SECOND ENDORSEMENT TO PREINSURV LTR SER C1018  
 OF 18 AUG 1976.  
 B. CNO WASHINGTON DC 131517Z AUG 76  
 1. BY REF A. SECNAV AUTHORIZED THAT USS LITTLE ROCK (CG 4)  
 BE STRICKEN FROM THE NAVAL VESSEL REGISTER ON 22 NOV 1976.  
 REF B. APPROVED PHILADELPHIA AS THE DECOMMISSIONING SITE.  
 2. ACCORDINGLY, DECOMMISSION AND STRIKE USS LITTLE ROCK  
 (CG 4) ON 22 NOV 1976.....

# YOU KNOW IT'S THE END

By JO1 JERRY ATCHISON



Buried among the many messages that funneled through the message center of USS *Little Rock* on August 28 was an order that seemed to make all the others devoid of meaning.

The scuttlebutt became a reality; the conjectures were confirmed. It was the end for one of the best and most highly regarded ships in the U. S. Navy. The 31-year-old flagship of the Sixth Fleet had grown too old to operate effectively and too tired to be overhauled economically.

A ship that was built in Philadelphia, transferred to the mothball fleet from Philadelphia and later put back into commission at Philadelphia, was returning to Philadelphia for the last time.

Throughout the Mediterranean, *Little Rock* carried the United States flag in times of peace and conflict. Those concerned with international diplomacy and politics called her a "high-profile ship." To her crew, she was home—a home they were soon to lose.

"It was a difficult time for the crew," said Commander R. R. Denis, ship's executive officer. "Difficult





OF A SHIP WHEN...

... 'You can't even get a good cup of coffee here'

because of the speed with which decisions were made and because we were forward deployed. 'Where are people going to go?' 'What's going to happen to me—my family?' Those are hard questions to answer in the middle of the Med. We knew we had to find answers—and fast."

Denis reviewed the events leading up to the decommissioning as the ship stood at pierside in Philadelphia

awaiting the stripping of the last of her equipment.

"The entire 1,000-man crew had to be transferred to further duty in just a few short weeks," he said. "That was a big job, particularly when you consider that every guy's transfer is important to him."

Screening of the crew was the first order of business for *Little Rock*, even before she left the Med. Career counselors, personnelmen and all others tasked

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*Editor's Note:*

*Since this story was written, stripping of Little Rock has ceased pending her possible disposal as a naval memorial at a location still to be determined.*

with ensuring the orderly transfer of the crew suddenly found themselves on an around-the-clock schedule. Information from the Bureau of Naval Personnel began to arrive on board and was passed to crewmembers.

The age-old task of matching individual wishes with the needs of the service began on *Little Rock*—before it ended the entire crew, including more than 500 in a one-week period, were scheduled for transfer.

For one *Little Rock* sailor activities at the Philadelphia Naval Base seemed oddly reminiscent. Gunner's Mate First Class Frank E. Bowen had been here before, 16 years earlier, as part of the precommissioning detail when the ship was pulled from mothballs and refurbished for fleet duty. Now he was once again in Philadelphia as part of *Little Rock's* decommissioning crew after various other assignments in between.

On the day *Little Rock* was to be decommissioned, GMM1 Bowen would enter the Fleet Reserve.

"I sailed in her for many years," he said. "I guess you could say they're going to decommission the both of us."

In the last weeks before her decommissioning, as she sat pierside, *Little Rock* showed few outward signs of her impending demise. To the casual observer, she might have appeared to be in port for a few days of liberty and upkeep. But a closer inspection would have revealed telltale hints.

She had been stripped of at least one item essential to any seagoing vessel—her life rafts.

On the main deck, a sailor could be seen ripping up the cruiser's revered teakwood deck—one of the last to be found on a major combatant. The man involved in the deck work considered the irony of his labor—rip-

ping up planks which he, and hundreds of others before him once swabbed and holystoned and swabbed again for endless hours.

"Each man is going to get a section of this when he leaves the ship," he said. "It's going to be a good reminder of the time we spent aboard, particularly the time we spent scrubbing these decks."

Below decks, there were also subtle indicators that this was no normal upkeep period. Hundreds of small tags hung from equipment of every sort—communications gear, damage control items, scuttlebutts. Although her hull was destined for scrap, much of *Little Rock's* on-board equipment was destined for use in other Navy ships, from tugs to aircraft carriers.

In the crew's compartment, a work party cut away piping that supported old canvas bunks, passing the frames through the hatch, up to the main deck. In another work area a sailor looked with surprise at the amount of space in what had previously been a crammed machine shop packed to the overhead with equipment. "I could rollerskate in here," he said.

The conversation aboard *Little Rock* also hinted at her fate. "I'm leaving in a couple of days and I've

Walking away from the ship he recommissioned in 1960 and decommissioned in 1976 is BMCM Thomas Santella.



## A Busy Ship-Right to the End

During her final deployment, *Little Rock* was a busy ship.

She served as flagship for three consecutive Sixth Fleet commanders. She became the first U. S. warship to visit Alexandria, Egypt, since World War II and she was the only foreign warship to take part in the reopening ceremonies of the Suez Canal.

*Little Rock* played a key role in rescuing flood victims from Tunisia in 1973, directed U. S. Navy humanitarian evacuations of noncombatants from Cyprus in 1974, and took part in the two Lebanon operations of 1976.





got to get my plane tickets.” or “My wife just phoned, the household goods are all packed.” or “Listen, I don’t have your address, just a second while I get a pencil and paper.”

Then the day came—a handful of crewmembers and a small number of guests huddled on the fantail of the ship. A freezing wind whipped across the deck and commercial jets screamed obliviously overhead, on final approach to Philadelphia International Airport.

Rear Admiral Wycliffe B. Toole, Commandant 4th Naval District, directed his remarks not at the ship but at the remaining crew of *Little Rock* standing behind the guests.

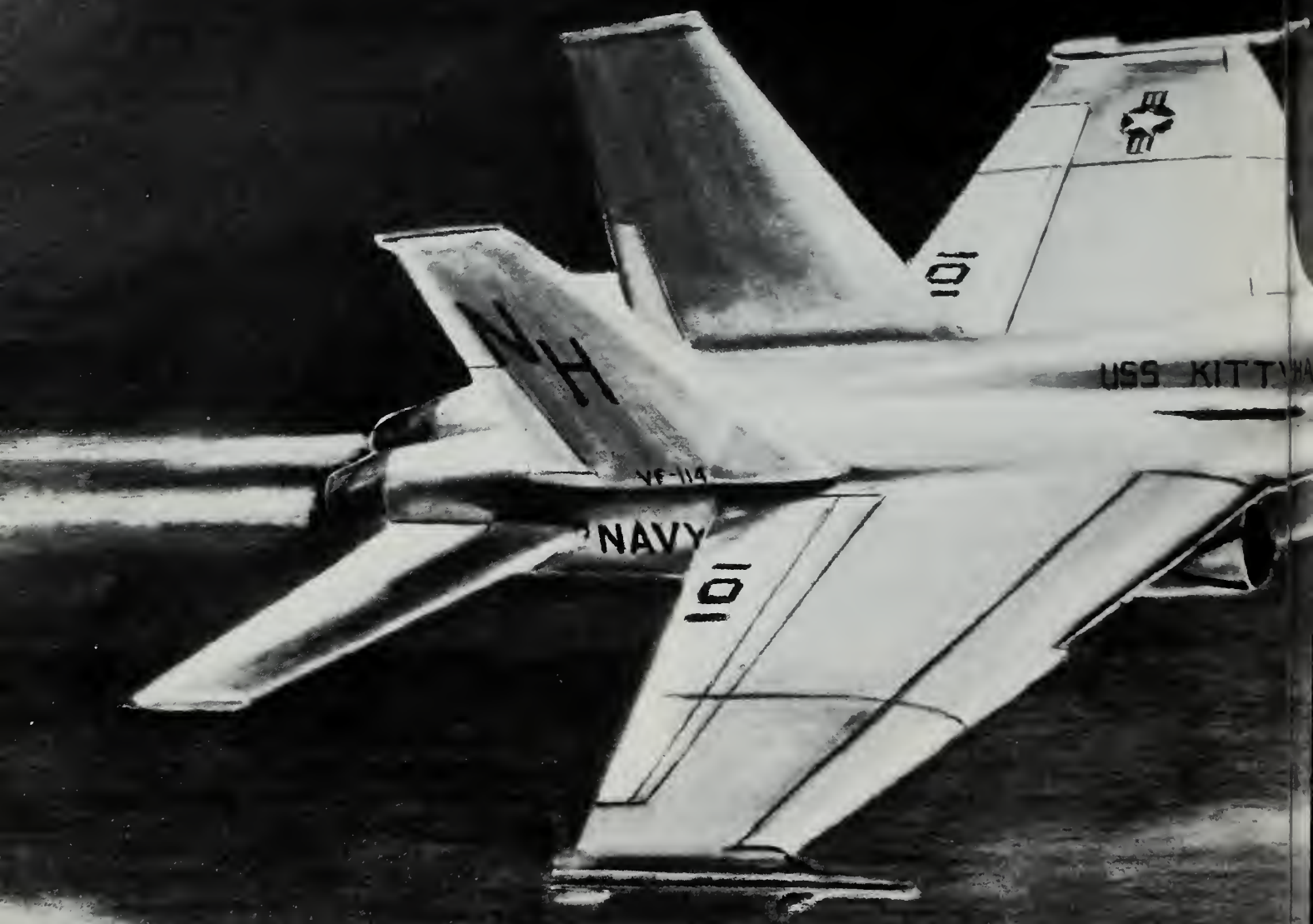
“Thirty years ago I saw my first ship decommissioning. At the end of World War II we had 8,000 or so ships and one more or less didn’t matter.”

Commander Kent R. Siegel, *Little Rock*’s last commanding officer, summed it all up. “The ceremony is really anticlimactic. You can’t even get a good cup of coffee here and that certainly spells the end of a Navy ship.” ⚓

Guests at *Little Rock*’s decommissioning ceremony bow their heads during the benediction.

*Little Rock*’s crew goes ashore for the last time.





*"Naval warfare can be best described as armed conflict between military forces in which the components of at least one adversary are sea based. It has generally been considered as being constituted of two basic functions: Sea Control and Power Projection."*

*Admiral James L. Holloway III  
Chief of Naval Operations*

Sea control and projection are missions as distinct from each other

as they are fundamental to United States naval strategy. The first involves defense of a sea area in which naval forces or shipping are tasked to operate. The second, projection, is the bottom line of seapower—the ability to attack a land area from the sea.

Now the Navy is developing a plane that will be able to do both. It's called the F-18, and is expected to eventually replace the

aging F-4s and A-7s now operating in the fleet. Though not considered as sophisticated as F-14 *Tomcats*, F-18s will complement *Tomcats* in providing maritime air superiority.

The fighter version will contain equipment and armament designed primarily for shooting down enemy aircraft; the attack version will be capable of attacks on surface targets. Even allowing for differ-





# F-18 air power for the eighties

ences in missions, the two F-18 designs (fighter and attack) will be practically identical. Both will be about the size of the F-8 which is 56 feet long with a 40.7-foot wingspan.

The \$5.8 million F-18 fighter will weigh 33,583 pounds including 10,860 pounds of fuel, and can be catapulted from a carrier deck fully loaded. This version will be armed with a 20-mm, M-61 internal gun;

two *Sparrow* missiles positioned on the lower corners of the fuselage; and two AIM-9 *Sidewinders* on each wingtip. Fully armed and carrying only an internal fuel load, the fighter will have a range of about 400 nautical miles.

The attack version will carry three 300-gallon auxiliary fuel tanks providing a total of 16,000 pounds of fuel, and have a range of about 550 nautical miles. It will

carry two *Sidewinders*, a 20-mm internal gun, four M-83 bombs, forward-looking infrared radar and laser spot tracker pods. It will have a gross takeoff weight of 45,131 pounds.

In addition to its array of weaponry, the F-18's controls are designed to help simplify the pilot's complex air combat missions. A button on the control stick permits convenient selection of guns or

missiles. An onboard computer provides firing solutions automatically. Radar modes can be activated by a control on the throttle. The attack version features a moving map display on which electronics warfare data are superimposed.

The plane's fuel system has been designed to minimize serious combat damage. No tanks are located around the engines, and two of the internal tanks are independent and self-sealing to guarantee sufficient fuel for at least 300 nautical miles if combat damage should cut off the supply from other tanks.

Several other F-18 features will enhance its air combat effectiveness and conserve costs:

- The two 16,000-pound thrust turbofan engines powering both the fighter and attack versions are completely interchangeable. By eliminating the necessity for producing and stocking separate engines for

the attack and fighter versions, or for the right and left side of each version, production and inventory costs are reduced.

- Each engine has an auxiliary drive system to drive the fuel pump, hydraulic pump, generator and air turbine starter. This system reduces the number of electrical connections to the engines and facilitates rapid powerplant replacement in case of damage.

- The F-18's auxiliary power unit, used to start the engines, can also supply power for a full ground checkout of all aircraft electrical systems without starting the engines.

- Some other ease-of-maintenance features include: radar mounted on tracks which enable it to be pulled directly out of the nose section; straight down removal of internal guns; a forward hinged windshield that provides easy access to instrumentation for making repairs; and caution warning lights

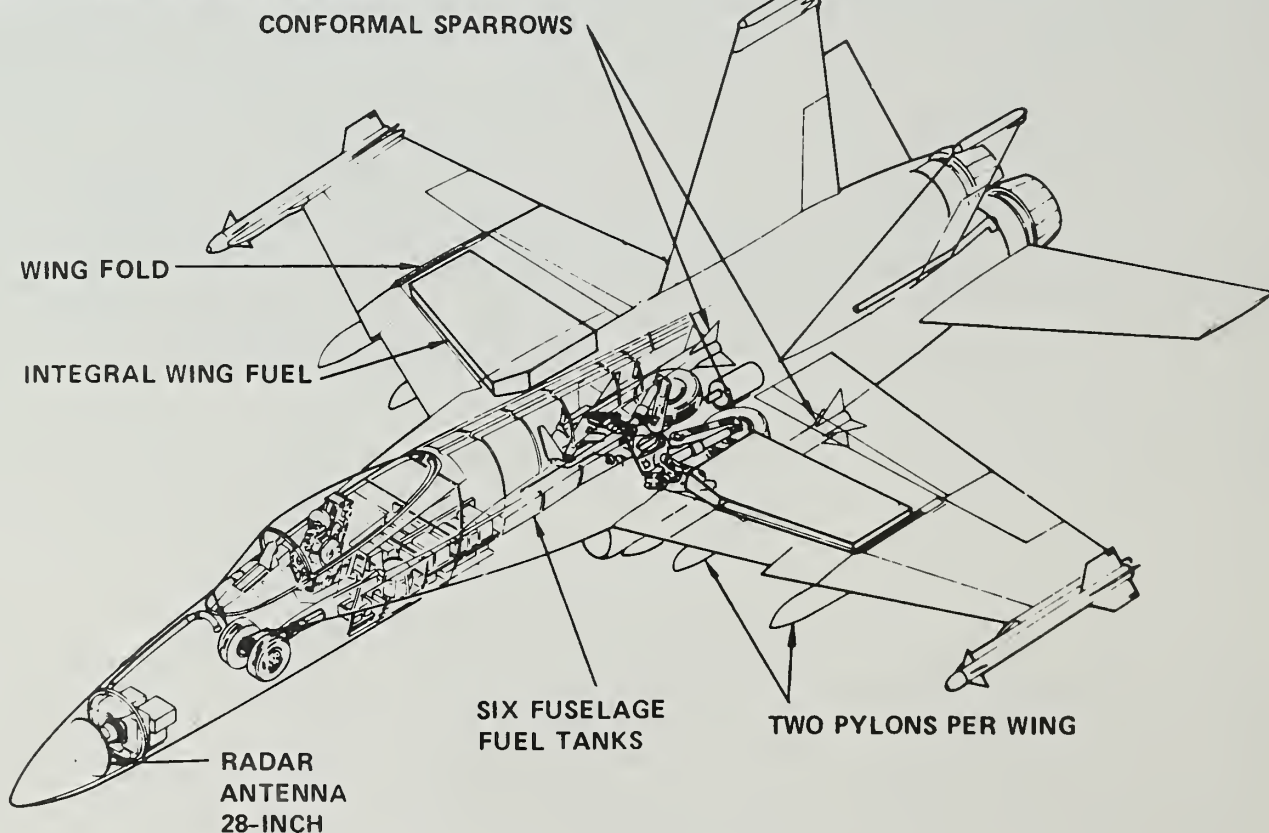
that indicate failures in critical equipment.

Current production schedules call for the delivery of 11 F-18s to the Navy for testing beginning in August 1978. Delivery will be speeded up beginning in February 1980 as "bugs" are corrected in the first test aircraft.

By the mid-1980s, the Navy expects to have accepted 185 fighters and 345 attack aircraft. Delivery rates will be kept deliberately low during the early phases to ensure that costs of any major modifications are kept to a minimum.

If all proceeds as planned, the Navy expects F-18 squadrons to be permanently deployed on board aircraft carriers by fiscal year 1982. While the F-18 alone will not guarantee sea control and projection, it will be an integral part of the overall Navy team and a definite asset in maintaining superior naval forces in the free world. ⚓

## DESIGN FEATURES





## Navy Women: A Continuing Story



**MCPON Robert J. Walker**

personnel goal then was 1000 officers and 10,000 enlisted.

The law that established those first women as a true part of the U. S. Navy was enacted in July 1942. The original proposed bill had intended to amend existing legislation and set up an emergency wartime organization called the Women's Auxiliary Reserve. The adopted proposal differed slightly in that it established a Women's Reserve as part of the Naval Reserve. Along with the lone lieutenant commander authorized, there were to be 35 lieutenants and no more than one-third of the total number of officers could be lieutenants junior grade.

This, of course, was not the first time women were associated with the Navy. The Navy Nurse Corps was established on May 13, 1908, when 20 women, since called the Sacred Twenty, were entered on the rolls.

During March 1917, the famous Ycoman (F) of World War I came into being. The Navy's civilian work force could not meet the clerical needs of naval shore stations. It was found that the act establishing the Naval Reserve Force did not specify any male only eligibility requirement. Therefore, women could be enlisted for the emergency to serve as yeomen, translators, draftsmen, fingerprint experts, camouflage designers and recruiting agents.

Unlike their World War II counterparts to come, the Navy's women of 1917-18 could and did serve overseas. But, back to World War II—by 1943, some 27,000 officers and enlisted women were serving in the Waves (a term not used in official Navy correspondence). More ratings were open too—gunnery and blind flying instruction, acrology, aviation ground crew

work, navigation and communication. By the second anniversary, the number of Navy women rose to 72,350. Provisions were being made for a woman to hold the rank of captain. By their third anniversary, approximately 86,000 women were serving in the Navy.

Women became an integral part of the peacetime Navy when the President signed the Women's Armed Services Integration Act on June 12, 1948. Today, in the absence of the draft, the Navy endeavors to make maximum use of volunteer personnel resources. Women are at the heart of such resources.

By making use now of the talent and expertise we have on board, we will continue to attract qualified women to remain as members of the Navy team. But, to maintain progress in opportunity for women, we must seek out every possible approach to better management of our Navy women. Maintaining this progress means that we must try to close the gap between what Navy policy allows and what is actually practiced in the daily working situation.

At present, it is primarily in the area of attitudes that progress needs to be made, that is, women should be knowledgeable about their function in the Navy and set realistic goals, and males in supervisory positions should review their attitude concerning the role of women in the Navy.

Over the last century, changes have occurred in the employment and role of women in all areas of American society. The Navy must grow and change also. For our women to progress professionally, they must be given leadership and professional opportunities.

The Navy will continue to assign women across the entire spectrum of available jobs. However, only enlightened attitudes can assure the acceptance of Navy women.

How successful the Navy will be in realizing its goals of equal opportunity toward women actually depends on how well our attitudes keep pace with the modern Navy. ⚓

# Bearings

## Gato Does it in 40

When Ferdinand Magellan navigated the strait now named for him, it took five and one-half weeks. That was in 1520. Now, 456 years later, *uss Gato* (SSN 615) made the same trip in 40 hours and became the first nuclear-powered submarine to tran-



Touching the foot of the Patagonian Indian at Magellan's Monument in Punta Arenas, Chile, is supposed to bring you good luck.

sit the strait at the southern tip of South America.

*Gato* and three surface ships were involved in Unitas XVII, a series of naval exercises involving the U.S. Navy and the major navies of South America, when she sailed the strait. During the passage, *Gato* made a two-day port call at Punta Arenas, Chile, which is the southernmost city in the world.

*Gato* completed the deployment

by passing through the Panama Canal and claiming another record—that of the first nuclear submarine to circumnavigate the South American continent.

## Yard Goes to the Top

The Washington Navy Yard, oldest shore installation in the Navy, has been designated a National Historical Landmark by the Interior Department. The yard was established by President John Adams in 1799. The Latrobe Gate, main entrance to the yard, has a tale all its own—only the President of the United States can enter the gate head on from 8th St. leading directly to it. All others must make a right turn into the gate from M St. Seems President Lincoln set the tradition during the Civil War—he had a habit of barreling through the gate in his carriage, heedless of traffic flow or the directions of sentries at the gate.



## Swinging With Gridley

More than eight years ago, a small town in New York was besieged by thousands of young people and became the legendary musical event of the decade. It was called Woodstock—three rain-drenched days of people enjoying people who made music.

In October, this same bond of friendship again emerged through the medium of music. It rained but the people kept dry and there was music, although it lasted only four hours. It was called the Japanese/American Rock n' Blues Concert and took place in Yokosuka.

The men of *uss Gridley* (CG 21), operating in the western Pacific with the Seventh Fleet, arranged the concert as a "people-to-people" project while in the Japanese port. They invited two rock and blues bands from Tokyo to come down to jam with musicians from *Gridley*. The bands came and so did the rain.

The concert, scheduled to be held on a pier, didn't turn into another wet Woodstock though. *USS Midway* (CV 41) came to the rescue by offering a hangar deck as a refuge for the musicians and their audience of more than 1000.

Listeners found that, regardless of cultural differences, music can become the common denominator bringing people together—as it did at Woodstock.

## Raising Beefalo \$ \$

Sailors have sometimes been known for their unique off-duty hobbies. Chief Radioman Earl Maggard has one that is—to say the least—different. He raises Beefalo.

"Yes, Beefalo," says the Patuxent



River-based Navyman. "It's only a matter of time before Beefalo replaces Angus and Hereford just as those two breeds replaced the Longhorn. The Beefalo,  $\frac{3}{8}$  buffalo and  $\frac{5}{8}$  domestic breed, usually Hereford or Charlois, is already popular on the West Coast and it's gaining in popularity elsewhere."

Ranchers tried for years to cross-breed the range-hardy buffalo with



domestic cattle and failed. Even the Canadian and Russian governments experimented for decades with no success. They found that although a buffalo was willing to mate with a domestic cow, continued cross-breeding was impossible because the offspring were usually sterile.

Then a Californian developed the first Beefalo bull that wasn't sterile, built a herd and made a fortune by selling one bull for \$2.5 million.

As for Chief Maggard, his Beefalo roam at a friend's farm near Patuxent River where he pays their rent by working as a farmhand.

## Display Is NATO Epic

It was a scene that would have made a movie director envious—warships and merchantmen of every size steaming in formation through the blue waters of the western Mediterranean, air strikes in support of ground troops, convoy operations and Marines wading ashore from landing craft amid the noise and smoke of battle.

What looked like the beginning of another Hollywood war epic was actually one of the largest afloat NATO exercises in recent years.

**The guided Missile cruiser USS Albany (CG 10) in the western Mediterranean during "Display Determination."**

Forty-eight U.S. and Allied Navy and merchant ships gathered in the Mediterranean last September and October for "Display Determination." The exercise was one of the "Autumn Forge" series conducted throughout Europe last fall.

The naval force included three separate carrier task forces and a merchant convoy. USS *Nimitz* (CVN 68), USS *America* (CV 60) and HMS *Ark Royal* (RO 9) task forces, including a battalion of U.S. Marines and units from Portugal, Italy and Turkey, combined at-sea training operations with command and control techniques to ensure that NATO operational plans remain current with today's modern fleet operating procedures. ⚓



# '76

# We Continue

*One year, 12 months or 365 days—no matter how you count, the fact is 1976 was quite a year for the Navy and the nation. It was the United States' Bicentennial and, of course, the Navy's Bicentennial-plus-one. But, as you'll see by the following review, it was also a time of much activity and many milestones.*

## JANUARY

**5—** TIME Magazine names Lieutenant Commander Kathleen Byerly, Flag Secretary and aide to COMTRA-PAC, as one of 12 "Women of the Year—1975."

**14—** Two Navymen join the 1976 Olympic Bobsled Team: GMG2 Frederick Fritsch, UDT 21, and RM2 William Renton, Seal Team Two.

**19—** CNO testifies on fleet readiness before a House Armed Services subcommittee and establishes fleet readiness as the Navy's primary objective.



**21—** The President submits record \$112.7 billion FY77 defense budget to Congress which contains \$37.4 billion for Navy programs including \$6.3 billion for 16 new ships.

## FEBRUARY

**13—** Captain Fran McKee becomes first woman line officer appointed to rear admiral.

**18—** New ship material readiness course for senior officers is established as part of a Navy effort to emphasize technological education for officers.

**23—** Three Navy ships transport men and equipment of an Army engineering task force to Guatemala to assist in earthquake relief.

**26—** RADM James B. Stockdale, Commander, ASW Wing Pacific, and LT Thomas R. Norris, USNR (Rct), receive Medal of Honor from President Ford for heroic



**ALL HANDS**



# to Make History

actions during American involvement in Vietnam.

## MARCH

2— New procedures for notifying enlisted personnel of advancement go into effect. Each of the E-4 through E-6 exam cycles is split into two segments.

14— Two Navy satellites, SOLRAD I and II, are launched at Cape Canaveral to observe solar conditions and forecast atmospheric disturbances.

24— New agreement signed by SECNAV and Secretary of Labor enables Navy enlisted personnel to gain apprenticeship certification for training and experience received on active duty.

## APRIL

6— Women officers allowed to enter all restricted



line communities via initial commissioning programs or lateral transfers.

8— Navy's experimental 100-ton surface effect ship (SES) launches medium-range SM-2 missile while moving at 60 knots off Florida.

10— Keel-laying ceremony held for the first Trident submarine *Ohio* (SSBN 726) at Groton, Conn.

## MAY

8— Medal commemorating the Navy's Bicentennial was released.

14— Naval Officer Candidate School, Newport, R. I., notes 25th anniversary.

15— Pulitzer Prize winning naval historian, RADM Samuel Eliot Morison dies in Boston at age 88.

19— First three Navy enlisted women are graduated from Naval Academy Prep School, Newport, R. I.



# 76

## We Continue to Make History



**21—** Navy authorized to design, construct and test prototype 3,000-ton surface effect ship.

**26—** Six Seventh Fleet ships, Seabees and Marine Corps personnel arrive in Guam to assist in Typhoon Pamela relief efforts.

**29—** USS *Tarawa* (LHA 1), first in a new class of amphibious assault ships, is commissioned in Pascagoula, Miss.

### JUNE

**1—** DOD announces voluntary "do-it-yourself" moving program, providing cash bonuses to people who move their own household goods within CONUS.

**5—** Four women officers are selected for transfer to the Restricted Line—first time in Navy history.

**16—** Aerobics program is approved by CNO for all Navy personnel.

**17—** A new weight control program applies aviation weight standards to all Navy personnel.

**17—** USS *Constitution* "puts to sea" for two-hour

turnaround cruise with representatives of 33 nations and SECNAV embarked.

**20—** USS *Spiegel Grove* (LSD 32) evacuates 276 U. S. and foreign nationals from war-torn Beirut in Lebanon.

**21—** Senate ratifies five-year treaty with Spain giving U. S. continued use of Rota Naval Base.

**30—** Surface effect ship (SES 100B) sets speed record of 103 mph (89.5 knots).

### JULY

**1—** SECNAV creates a special independent three-member board to speed up efforts to settle outstanding shipbuilding claims.

**4—** Navy men and women around the world celebrate nation's Bicentennial; International Naval Review and Operation Sail held in New York.

**6—** First women enter Naval Academy as members of class of 1980.

**16—** Navy selects "Sailors of the Year" for FY76:



HT1 Ararat Krikorian, HT1 Randolph R. McClary and MA1 Thomas C. Wallace.

**27—** Landing craft USS *Portland* (LSD 37) evacuates 300 Americans and other nationals from Beirut, Lebanon.

## AUGUST

**16—** Navy dependents become eligible for emergency space-available travel on Military Airlift Command aircraft.

**20—** USS *Ainsworth* (FF 1080) first ship to receive production version of *Harpoon* missile launch system.

**21—** First E-5/E-6 Petty Officer Quality Review Board reports to CNO.

**28—** Soviet *Echo II*-class submarine collides with USS *Voge* (FF 1047) in Ionian Sea.

## SEPTEMBER

**1—** USS *Sylvania* (AFS 2) arrives in Norfolk carrying treasures from tomb of Egypt's King Tutankhamen on 30-month loan to U. S.

**10—** Vice Admiral Samuel L. Gravely, Jr., first black to achieve three-star rank, assumes command of Third Fleet.

**14—** USS *John F. Kennedy* (CV 67) and USS *Bordelon* (DD 881) collide during a night refueling operation

100 miles north of Scotland; seven *Bordelon* crewmen injured.

**25—** Oliver Hazard Perry (FFG 7), first of a new class of guided missile frigates, launched at Bath, Maine.

## OCTOBER

**1—** Military personnel receive 4.83 per cent raise.

**1—** Proficiency flying terminated.

**2—** Admiral James L. Holloway III visits commands in Western Pacific.

**4—** Tax Reform Act makes withholding of state income taxes from military paychecks mandatory if states request such action.

**7—** Twelve naval districts reorganized; number of primary commandants reduced to four.

**13—** Washington Navy Yard, oldest shore installation in the Navy, designated a national historic landmark.

**20—** New Jewish worship pennant displayed for the first time, aboard USS *Guam* (LPH 9).

## NOVEMBER

**11—** F-14 *Tomcat* lost from USS *John F. Kennedy* (CV 67) during NATO exercise in September, recovered near Scotland.

**13—** USS *Los Angeles* (SSN 688), first of a new class of nuclear attack submarines, commissioned at Newport News, Va.

**30—** Six-week operational evaluation of submarine-launched version of the *Harpoon* missile begins aboard USS *Permit* (SSN 594).

## DECEMBER

**1—** CNO orders Navy Uniform Board to look into feasibility of restoring the old-style uniform to the fleet. Admiral Holloway says that the Navy shouldn't "neglect the possibility of a reintroduction at some time, for some people, of that type of uniform."

**7—** The Navy's *Tomahawk* cruise missile successfully flies 188 miles and locates a target ship in the Pacific Ocean test range. The missile was launched on its 55-minute mission from an A-6 *Intruder*.

**9—** Navy announces selection of contractor for building 3,000-ton prototype SES. ⚓



# Rights & Benefits

## Survivor Protection

Before you finish this paragraph, two people in the United States will die. Before the day is done, two sailors will die. Like taxes, death is inevitable. For many, the grief is compounded by ignorance—ignorance about the protection that can and should be afforded to those left behind.

To a great extent, the military has resolved that problem by providing automatic survivor protection. Military survivor benefits cover a broad range of services and can translate into thousands of dollars for your dependents and loved ones.

If you were to die on active duty tomorrow, help would be immediately available to your family in the person of a Casualty Assistance Calls Officer (CACO) who would assist with such details as transportation, child care, funeral and burial arrangements and survivor benefits claims submissions. But personal assistance is only the tip of the iceberg.

In addition, your survivors can count on a broad range of payments and services including:

- **Death Gratuity**—This is a lump sum equal to six months' basic pay with a minimum of \$800 and a maximum of \$3000. This money is payable first to the spouse; if none, then to the member's children and, if none, to whomever has been designated on the Record of Emergency Data (NavPers 1070/602).

- **Unpaid Pay and Allowances**—This includes regular pay and allowances and per diem earned up to the time of death and is payable to a designated beneficiary.

- **DIC**—Dependency and Indemnity Compensation is authorized for unremarried widows and widowers of service members, retirees, or veterans who die of service-connected causes. Normally, in the absence of negligence, this means all deaths while on active duty. DIC is like a life annuity—payments continue on a monthly basis. Pay is according to grade (see table). A widow or widower is entitled to \$43 per month extra for each child. DIC is not subject to tax or seizure by creditors of either the service member or the beneficiary, and this pay does not prevent an eligible widow or children from receiving death benefits from Social Security.

- **Funeral Expenses**—The Navy will pay up to \$700 in funeral expenses. The family may also be

eligible for funeral expenses from the Social Security Administration. All active duty and honorable discharged service members are entitled to a headstone and burial in a national cemetery of their choice, if space is available.

- **Transportation**—Dependents are eligible for government transportation from the place where the death notice was received to any place they designate. They also may ship their household goods from the last duty station or place of storage. Privately owned vehicles may be shipped if the death occurred overseas. And the Navy will pay up to six months' storage of household goods in connection with final shipment.

### Dependency and Indemnity Compensation

Pay Grade	Monthly Rate	Pay Grade	Monthly Rate
E-1	\$260	W-4	\$372
E-2	268	O-1	328
E-3	275	O-2	340
E-4	292	O-3	364
E-5	300	O-4	384
E-6	307	O-5	423
E-7	322	O-6	476
E-8	340	O-7	516
E-9	355	O-8	565
W-1	328	O-9	607
W-2	341	O-10	664
W-3	352		

- **Privileges**—Unremarried widows and widowers can use commissaries and exchanges. They are entitled to health benefits in uniformed services medical activities where available, and to hospitalization and outpatient care from civilian sources on a cost-sharing basis. Legal aid is also possible.

- **Clubs**—Widows and widowers may use appropriate open messes when available.

- **Preference**—Unremarried widows and widowers have preference in federal employment, including an addition of points to the passing score in Civil Service competitive examinations and preference in appointments and reinstatements.

- **Insurance**—Families of participating service members receive up to \$20,000 from the Servicemen's Group Life Insurance. Distribution is according to that listed by the member on the Serviceman's Group Life Insurance Election form (VA form 29-82-86).



• **Dependents' Education**—Many scholarships and loans are available to those who come looking, as is assistance from the Veterans Administration.

Because of the substantial value of these survivor benefits, planning and action on the part of the Navy sponsor is necessary. Perhaps the most important step is to make sure your Record of Emergency Data is up to date. This document, which is in each member's service record, indicates who is to receive some of your survivor benefits.

Another planning consideration arises as the Navy sponsor nears the end of his or her military service. Although much of the protection follows a member into retirement, the death gratuity will apply only when death is from a service-connected disability. DIC may be paid any time after the member's retirement, if the death was caused by a service-connected disability. Those about to retire may want to consider the Survivor Benefit Plan, a method for giving survivors part of the service member's monthly retirement check after his or her death. Otherwise, there is no pension after a retired sailor dies.

Those who enter the plan are able to provide an annuity for their spouses and/or children of up to 55 per cent of their retainer or retirement check. The cost is small each month and, under recent legislation,

the amount withheld would cease if the intended survivor dies before the service member.

Survivors may be eligible for social security benefits, some of which may affect your pension earnings. Be sure to get specific information from your Career Counselor or other knowledgeable party.

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These rights and death benefits have considerable value and provide the foundation for an estate. But they are not necessarily sufficient protection. Every service person should determine how much his or her dependents will need in the event of his or her untimely death and compare these needs with the actual available benefits.

Commercial life insurance and other investments may be necessary as an adjunct to military survivor protection.

Whatever your circumstances, you should make a point to discuss the matter of family survivor protection with your dependents. Even though the prospect of your death may not be the most pleasant of subjects, your family deserves to know what to expect. If you have maintained updated emergency data records, determined your family's needs and supplemented government survivor protection as necessary, you will have provided your loved ones a most valuable and necessary service.

To help you in getting the specific facts and figures you need in planning for your family, visit your local command Career Counselor. He can provide you with up-to-date information not only on Navy programs but also on Social Security and Veterans Administration programs as well. ↓



# Whatever happened to the **ENERGY** crunch?

BY JO2 DAVIDA MATTHEWS

"We aren't waiting in line for gas anymore but that doesn't mean we're out of the woods," said Commander R. D. Furiga, Director of the Navy Energy Office. "We are still in an energy crisis and something has to be done."

The energy crunch seems to have abated—for the moment. Left in its wake is a new awareness of our reliance on energy resources. What caused that energy crisis was, basically, a decreased supply and increased demand. A voracious and sometimes wasteful user of energy, the United States accounts for one-third of the world's current consumption of petroleum. Our economy revolves around crude oil and its products—a need for which increases at a rate of about three per cent each year.

The natural resources used to create energy are being depleted at a steadily increasing rate. Since the discovery of crude oil in this country around 1900, we have used up

nearly 50 per cent of our oil reserves. Experts estimate that — at present consumption levels — we will run out of domestic oil, including Alaskan reserves, within 30 years.

"In 1973, Canada and Venezuela provided the U. S. with what we termed secure energy sources, but now they too are looking to their own national needs and, understandably, are backing away and reducing their level of petroleum exports," CDR Furiga explained.

Sixty per cent of the world's known reserves of crude oil are in the Middle East. The sudden embargo jolted many Americans into the realization that the U. S. depended upon those countries for one-third of its needed crude oil.

"That figure has since increased to 40 per cent. We are now more than ever dependent upon foreign countries, especially Nigeria and Saudi Arabia, for our energy sources," said the Commander.

"We've gotten to the point where we must find ways to decrease energy usage, but not our readiness. For instance, we've found that a destroyer out of overhaul for 24 months uses 16 per cent more thrust horsepower to reach 20 knots and 15 per cent more fuel because of marine growth on her hull. One aspect of our conservation program involves finding a way to get that ship's hull economically cleaned sooner, or developing a coating that will keep the growth from forming,

and not cutting down on operations," he stated.

"But conservation is only a temporary answer," the Commander continued. "The nation and the Navy are well aware that other sources of energy must be found."

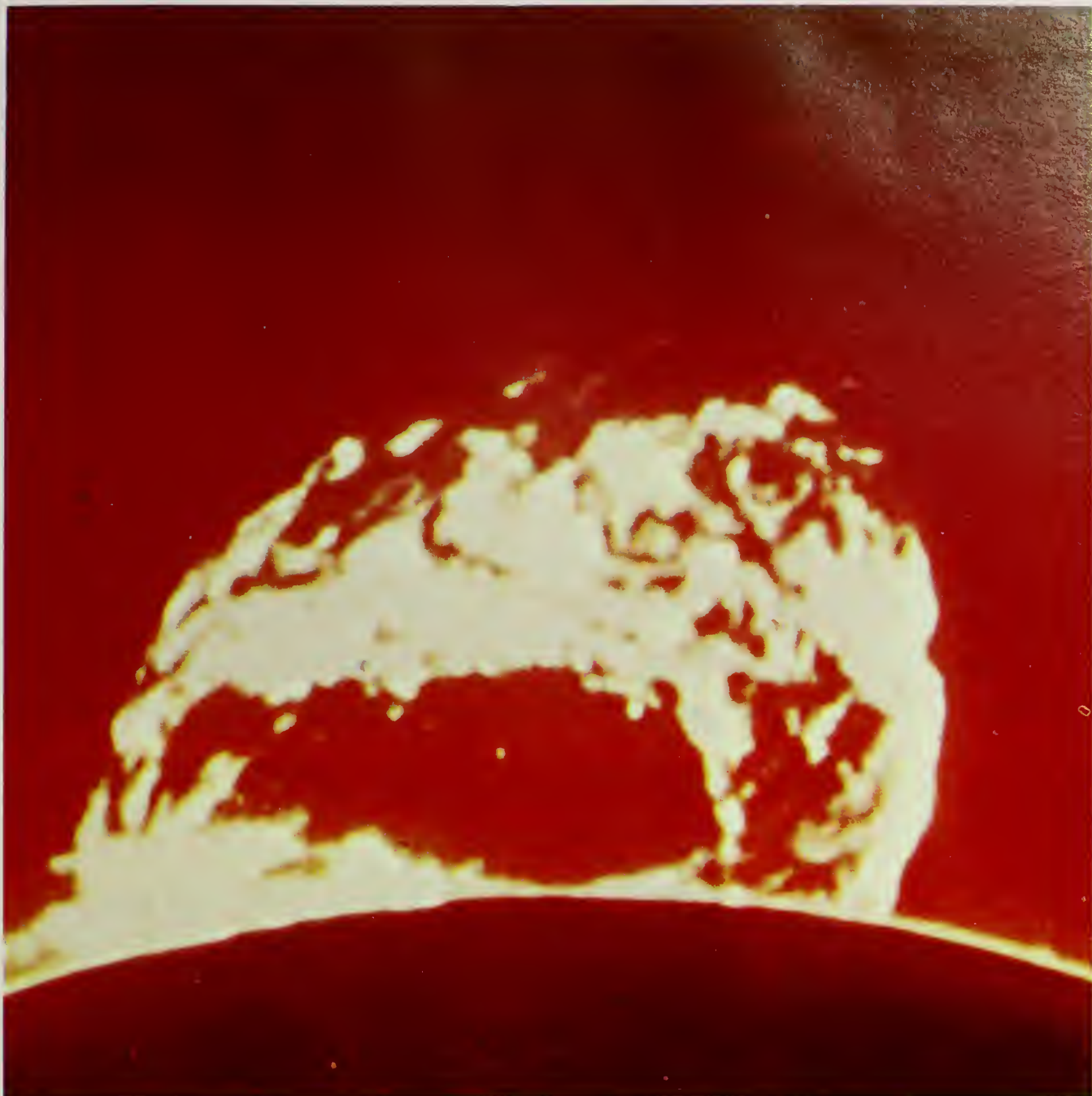
As landlord to over 90,000 families (housing units), paying more than \$51 million each year just for utilities, the Navy requires not only fuel for a future fleet, but also an inexpensive form of domestic energy.

"Initially, we pushed conservation to produce quick savings in the emergency situation. But, we are down to a point now where we've got to do some major investing in alterations, retrofits, and the like, to get any more savings," Furiga explained. "Just part of that investment for the future includes synthetic fuels and natural energies such as the sun, wind and the earth's heat (geothermal).

"The energy program in the Navy was fragmented. We had consumers who needed the energy, logisticians concerned with supply, comptrollers interested in budgets and engineers involved with projects. What was needed," the commander continued, "was something to bring it all together. That's why the CNO Energy Office was established."

The office was formed under the Deputy Chief of Naval Operations for Logistics to provide an overall, servicewide coordination of energy programs. "One of our initial ef-





forts was to come up with a plan that answered the question: 'What should the Navy be considering to prepare for a future era of scarce energy resources?'" Furiga asked.

"Once that plan was formulated, we had to be able to provide for a continual review, for what holds true today in the energy situation may not be true tomorrow."

The Navy energy plan has, basically, five strategies—conservation, synthetic fuels, self-sufficiency, en-

ergy management and resources control. Synthetic fuels is one strategy receiving increased attention. The Navy is watching closely the development of a synthetic fuel produced from coal, oil shale and tar sands.

Before the discovery of crude oil in the U. S. 75 years ago, coal was used for 90 per cent of our nation's energy needs, including Navy ships. Even now, the U. S. has vast reserves of coal—three times that of

**Sunspot activity reveals potential solar energy.**

the combined Middle East oil reserves.

But coal has distinct disadvantages; for one, when burned, it pollutes the air. In the 1960s, when the push was on for cleaner air, Navy installations decreased the use of coal in favor of clean-burning, easily accessible natural gas and oil.

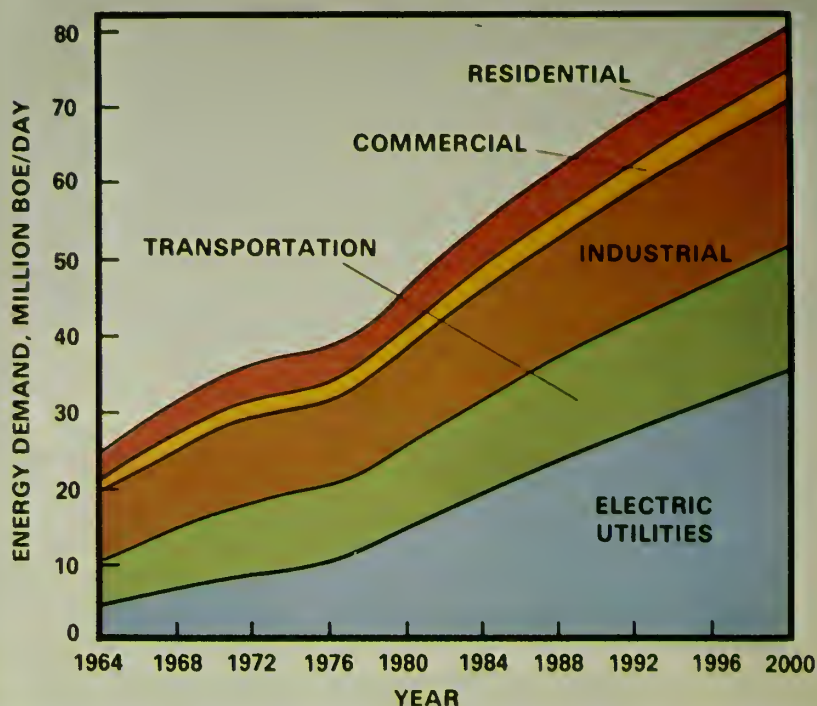
"The systems were inefficient, but when we were purchasing oil at three cents a gallon, it didn't really matter. Now we are paying 30 cents a gallon in some cases and it does matter," Furiga said. With costs expected to spiral even higher, the Navy is once again looking to coal in the form of a synthetic fuel.

Unbelievable as it may seem, fuel gas from coal was processed almost 200 years ago. As recently as World War II, on the other hand, a major part of the German armed forces was fueled with liquid coal. At that time, Germany had several synthetic fuel plants producing about 100,000 barrels a day. Since then, the use of coal as a synthetic fuel has dwindled. It was generally considered too costly.

But that was in another era. Today liquid coal could be part of the answer to the energy problem. Many new processes have been developed using coal and the U. S. actually could be producing liquid fuel on a commercial level within the next few years.

Ranking second to coal as the most abundant source of nonpetroleum fossil fuel is oil shale. But, like

## U.S. PRIMARY ENERGY DEMAND (BY MARKETS)







**Left:** Experimental solar collector at Naval Ammunition Depot, Hawthorne, Nev. **Above:** Refineries, as this in Canada, convert tar sands into crude oil.

liquid coal, oil shale also was considered too expensive to process. Today, the production of shale oil has become a valuable area of exploitation.

"Oil shale crude can produce a range of distillate fuels, such as those used as jet or diesel fuel," explained Furiga. "Fuel derived from coal provides a usable grade of gasoline but is not suited for uses as a distillate fuel without extensive refining. So the Navy's primary interest in synthetic fuels deals with oil shale. The thrust of the Navy program is to ensure that synthetic fuels derived from oil shale are compatible with our propulsion systems."

The oil, kerogen, contained in shale, is believed to be a form of undeveloped crude oil. However, in the case of kerogen, nature didn't

provide the heat and pressure which would have converted it to oil. Modern technology, however, has allowed man to take up where nature left off. Estimates on the amount of shale-derived crude oil potential range from 1.8 to 2.2 trillion barrels—substantially enough to offer another long-range solution to the fuel shortage.

A third significant source of synthetic crude is tar sands, a mixture of sand, water and an organic bituminous material. Tar sands are found in the U. S., but efforts to recover oil from the material have been limited.

Synthetic fuels aren't the only alternative. Man has already devised ways to use the power of the source of all energy—the sun. One of the projects dealing with solar energy involves the refitting, by the Naval Facilities Engineering Command (NavFac), of 15 housing units at San Diego and Twentynine Palms, Calif.; New Orleans, La.; Charles-

ton, S. C.; and New London, Conn.; with solar energy systems. These will provide homes with 60 per cent of their space heating requirements and about 90 per cent of their hot water, supplementing conventional systems. Technical and cost data from this experiment will be incorporated with other studies to provide a basis for future use of solar heating systems.

The Civil Engineering Laboratory at Port Hueneme, Calif., will be running a project almost concurrently with NavFac. This study deals not only with solar energy but also other forms of energy savers such as windpower. The lab plans to start from the ground up, building a model structure (resembling a home, small office or other facility), using energy-saving construction materials and techniques. The structure, called an Advanced Energy Utilization Test Bed, will feature such items as collapsible interior partitions that can be arranged to

**Right: Offshore drilling for one of many energy sources. Below: Geothermal well at China Lake, Calif. Below right: Vast reserves of coal in the U. S. are strip-mined.**





# “The Navy plans to harness ...internal heat of the earth”

suit different tests and removable wall panels to facilitate changing insulating materials.

Several different projects are planned for the Port Hueneme structure. A few of these are testing solar heating systems, windpower, heating, ventilation and air-conditioning equipment and lighting.

The Civil Engineering Laboratory plans to test a variety of solar collectors with as many as four different types on the roof of the structure at the same time. Each system is capable of heating the entire building, but the laboratory's job will be to decide not if they work, but which one would be more suited to the Navy's needs.

In addition to harvesting the sun's energy, the engineers plan to construct a 40-foot tower near the test bed to catch the wind, using a 16.5-foot propeller to power a five-kilowatt generator. The generator is large enough to provide electricity for some of the experiments. Although Port Hueneme is considered a poor area to depend upon for constant winds, the experiment will demonstrate the applicability of wind as a power source. After control systems are developed for the tower, testing will continue at windier sites.

Experiments with lighting are also planned for the test bed. Nearly all residential lighting in Navy housing units is by incandescent light, which consumes over 16 per cent of the energy used in a home. Fluorescent

lighting is twice as effective in terms of energy conservation, yet is unpopular because of the “cool” color it emits. Just a few of the many tests planned will deal with this problem. One way engineers hope to correct the complaint is through semi-direct/indirect lighting; in another way, illuminized reflective surfaces will scatter the light. The lab also plans to study ways to make better use of daylight. Working with University of California laboratory engineers, they will install a limited number of special windows to test window coatings, adjustable overhangs, reflective ground surfaces beneath windows, and several other techniques.

Throughout the project the structure will be closely monitored by an array of devices, some of which have been modified to fulfill the conservation objective. One, an infrared scanner, has been used successfully in a conservation program concerned with locating and correcting energy losses. The portable, hand-held scanner uses a device resembling a TV camera to produce an image that can be photographed or transferred onto a magnetic tape, depending on how the device is set up. That photo (or tape) can be translated into temperature—dark spots indicate cold, and white spots, heat.

Recently, the unit was used to detect air-conditioning losses in a desert housing area, locate an insulation breakdown in a buried steam line and pinpoint hot spots in a

power line substation. Since 30 per cent of all energy consumed is wasted, the scanner should prove invaluable in lowering that figure.

Another natural source of energy the Navy plans to harness is geothermal, the internal heat of the earth. A project at the Naval Weapons Center, China Lake, Calif. involves sinking a well to 17,000 feet to tap the earth's underground reserves of energy in the form of steam. Topped by an energy converter to change the raw power into usable electricity, the well is expected to provide enough electrical power to completely supply the China Lake installation and supplement surrounding communities' sources.

As the Navy enters its third century, it faces a unique problem—coping with the world energy situation. As CDR Furiga summarizes, “It's time to decrease our dependency upon other nations. The Navy is actively involved in doing its part to decrease this dependency, aiming all the while at maintaining that all-important fleet readiness.” ⚓

# Choking:

## RECOGNIZING SYMPTOMS

BY LT STEVEN R. SCHELKUN, MC

Since 1974, the "Heimlich Maneuver" has become another emergency first aid and lifesaving technique that has the potential to save lives daily. Named for its inventor, Dr. H. J. Heimlich, it is a technique for the prevention of death from choking on food, sometimes called "cafe coronary," since these accidents usually took place in eating establishments and the symptoms mimicked those of a heart attack. Further research showed that many died, not from a heart attack, but from asphyxiation caused by food lodged in the windpipes.

The "Heimlich Maneuver" can dislodge those food particles and allow the victim to breathe. It is an emergency first aid technique that anyone can learn to use effectively once he knows the symptoms of a choking victim.

Food choking is easy to recognize, usually occurs in a restaurant or at home during mealtime. The victim is suddenly unable to speak or breathe. He first becomes pale, then turns a deeply flushed shade of red or purple and then collapses. Without emergency aid death occurs in four to five minutes. Frequently the victim will clutch at his chest from lack of air. Acute heart attack victims will clutch their chests

but from pain. This is why cafe coronary deaths were at first attributed to heart attack.

*The important difference is that a heart attack victim has a clear airway and can breathe and talk. A choking victim, however, cannot talk.*

As a result, Dr. H. J. Heimlich has proposed a universal sign of distress that the victim can use and that the rescuer can recognize.

The victim should grasp his neck between the thumb and index finger of one hand to indicate that he is choking on food (see drawing).

The technique required to dislodge the food involves simply pushing on or squeezing the abdomen. This pushes the diaphragm up into the rigid chest cavity, increasing the pressure of the air in the lungs until it is great enough to pop the piece of food out of the trachea into the throat where it can be reached and removed.



If the victim does not resume breathing spontaneously Cardiopulmonary Resuscitation (CPR) should be instituted and a physician called.

The "Heimlich Maneuver" can be applied to an unconscious person lying prone or to a standing victim before he collapses into unconsciousness.

With the victim standing, the rescuer:

- Stands behind the victim and wraps his hands around the victim's waist.
- Grasps his fist with his other hand and places the thumb side of the fist against the victim's abdomen, slightly above the navel and below the rib cage.

- Presses his fist into the victim's abdomen with a quick upward thrust, repeating several times if necessary.

When the victim is sitting, the rescuer stands behind the victim's chair and performs the maneuver in the same manner. ↓



# Mail Buoy

## 'For the Navy Buff'

SIR: The June 1976 issue contained a section entitled "For the Navy Buff" in which one of the questions and its answer depicted USS *Bonefish* (SS 582) as "the last non-combatant diesel-electric submarine built by the U.S. Navy."

*Bonefish* was indeed the last diesel-electric sub built by the Navy, but the term "noncombatant" is in error. Rather than going into detail about her accomplishments, let me simply state that USS *Bonefish* is indeed capable of waging war.—LCDR J. R. McCleary, CO, *Bonefish*.

• *We have already been reminded by a few other alert readers that Bonefish is, indeed, a combatant.*—ED.

## Raising of Right Hand

Sir: Why do Navy people raise their right hands when being sworn into the service or reenlisting?—A. R. H.

• *This custom, common to both civilian and military personnel, is one of the oldest on record. It originated in the early days of sailing. Criminals were branded on the palm of their hands and prohibited from testifying in court or assuming positions of responsibility. Seamen entering the Navy raised their right hand, palm outward, to show they were trustworthy and did not have criminal records.*—ED.

## Farragut Means 'Horseshoe'

SIR: "Spanish Heritage" appearing in the September issue makes no mention of David Glasgow Farragut, the first four-star admiral in the U. S. Navy. "Damn the torpedoes" was a native of Ciudadela, Menorca, in the Balearic Islands. His name means "horseshoe" in the dialect of that locale. I think ADM Farragut was too important to leave out of an article dealing with Navy people of Spanish descent.—CAPT C. I. Stratmann, USN

• *Checking the records we found that David Glasgow Farragut was born July 5, 1801, at Campbell's Station, near Knoxville, Tenn. He was brought up as a ward of Commander David Porter and entered the Navy as a midshipman in 1810.*

*It was Farragut's father, George, who was born at Ciudadela, Menorca (Sept. 29, 1775). Seems the father served in the Continental Army, the Navy of South Carolina, and later the U. S. Navy—dying in 1814. Either way, we should have mentioned the admiral in the wrap-up and mentioned his father as well.*—ED.

## Souvenir Hunting

SIR: Regarding your August '76 article, "Authorized Souvenir Hunting," I recall reading an article about 10 years ago about an AFT going through refresher training that required a part for its antiquated main battery. The gunner on board recommended the

Amphibious Museum display as just what he needed and, with much publicity on someone's part, received permission to cannibalize the gun. I would venture it was a bushing he needed.—LCDR G. H. Coshow.

## U.S. Flag Over Others

SIR: On the cover of the September issue, the Ceremonial Color Guard didn't carry the U. S. Flag above the other flags. It seems to me that someone made a mistake. I was under the impression that the national colors were always flown highest.—YN3 L. Spencer.

• *When the U. S. Flag is paraded by a color bearer along with other flags (as depicted on the All Hands cover), the position of honor is to the right and not above the others. During honors or the playing of the National Anthem, the Marine and Navy colors will be dipped, but the U. S. flag may never be dipped.*—ED.



# Stern Shots

Each of the eight silhouettes shown is a ship of the Soviet Navy. See if you can match all of them with their proper class-types which are listed below. Be extra careful this month as there is one class-type listed which doesn't have a corresponding profile.

Answers appear below.



- |                    |                 |
|--------------------|-----------------|
| _____ 1. Moskva    | _____ 5. Kashin |
| _____ 2. Kara      | _____ 6. Kresta |
| _____ 3. Delta     | _____ 7. Victor |
| _____ 4. Nanutchka | _____ 8. Kuril  |
|                    | _____ 9. Kynda  |

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Answers to quiz: (a) 6 (b) 8 (c) 7 (d) 9 (e) 5 (f) 4 (g) 3 (h) 2 (i) 1



# FORRESTAL TESTS FOR



The crewmen experienced the first explosion shortly after manning their battle stations. A second detonation came later, temporarily knocking out lights and other equipment and causing the large ship to roll noticeably. During a two-day period last summer, the Atlantic Fleet carrier USS *Forrestal* (CV 59) was subjected to three explosions.

This was the first shock test conducted on an operational large deck carrier and was the latest of a continuing program designed to improve warship survival under combat conditions. Similar tests have involved USS *Spruance* (DD 963), lead destroyer in her class.

The carefully controlled test di-

rected by the Naval Ship Engineering Center involved detonating large, high-explosive charges at predetermined distances and depths from *Forrestal*. The explosions realistically simulated the combat environment associated with an attack by both conventional and nuclear underwater weapons. Technical personnel directing the test described the shock intensity experienced by the crew as that of "jumping off a curb with a jolt coming from below."

Before the test began, a thorough check for loose gear was made; aircraft and helos were secured by standard tie-down procedures; the engineering plant was set up for

battle conditions. Each test was accurately monitored by more than 100 channels of special instrumentation, including high-speed photography of selected areas.

Initial evaluation and analysis of the explosions was done on board *Forrestal* following each test. The data will be used to check existing practices and establish an engineering data base for more efficient shock hardening of large deck aircraft carriers and other large displacement ships.

As a result of the test, modifications designed to increase combat survivability of *Forrestal* and other aircraft carriers are now being implemented. ⚓



Little Rock Decommissioning · page 24



# ALL HANDS

APRIL 1977  
PENSACOLA FLIGHT TRAINING





*A Tactical Electronic Warfare Squadron 33 (VAQ 33) EA-4F Skyhawk attack aircraft from a wingman's point of view.*





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# ALL HANDS

MAGAZINE OF THE U.S. NAVY — 54th YEAR OF PUBLICATION  
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NUMBER 723

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Back: PH2 Robert Swanson captures the beauty of White Sands, where the Navy tests missiles far from the briny deep.

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# Currents

## Time in Service

**Requirements Lengthened** ● In response to revised Department of Defense Time in Service (TIS) requirements and Navy personnel management objectives, minimum Navy TIS requirements for advancement to enlisted paygrades E-6 through E-9 have been lengthened as follows:

Advancement to	Previous TIS	Revised TIS	Effective Date
E-6	6 years	7 years	1 Sep 77
E-7	9 years	10 years	1 Jan 79
E-8	12 years	13 years	1 Nov 78
E-9	15 years	16 years	1 Nov 78

E-6 candidates who participated in the February 1977 exam but were not selected for advancement, and would not be eligible to participate in the September 1977 and March 1978 advancement exams because of the new TIS requirements, are granted an automatic waiver to compete in both exams. The new TIS requirements also apply to Reservists serving on active and inactive duty. Details are in BuPers Notice 1430 of 24 Feb. 1977.

## Cutoff Dates

**for Viet Vet State Bonuses Announced** ● Vietnam Veterans who meet eligibility requirements may now receive bonuses from 11 states and Guam. Cutoff dates for application are: Connecticut, July 1, 1978; Illinois, July 1, 1977; Iowa, June 30, 1977; Louisiana, March 28, 1978; Massachusetts, no date set; Michigan, June 30, 1980; New Hampshire, Aug. 21, 1977; Ohio, Jan. 1, 1978; Pennsylvania, March 28, 1977; Rhode Island, June 30, 1977; Vermont, no date set; and Guam, May 7, 1977.

## Motion Picture

**One-Stop Shopping To Begin May 1, 1977** ● There will be one-stop shopping for both entertainment movies and General Training/Information Films in selected areas after May 1, 1977. The Navy Motion Picture Exchanges listed below will issue these movies to fleet units and shore activities in their respective areas. This new service is part of a pilot project to determine the feasibility of supplying all types of films from Navy Motion Picture Exchanges rather than from various scattered source film libraries. Initial libraries will be limited to selected films considered to be of high demand. However, efforts are being made to stock all these Navy Motion Picture Exchanges with a full variety of required Training Films subject to their current availability and the availability of funds to reproduce a wide sampling. Navy Motion Picture Exchanges participating in this pilot project are: USS Holland (Holy Loch), USS Canopus (Rota), NMPX Philadelphia, NMPX New London, USS H. W. Gilmore (La Maddalena), NMPX Charleston, NMPX Guantanamo Bay, NMPX Roosevelt Roads, NMPX Naples, NMPX Mayport and NMPX Norfolk.



## Shipboard Assignments

**Proposed for Navy Women** ● The Navy has developed a legislative proposal to amend Section 6015 of Title 10, U.S. Code, which currently prohibits the assignment of Navy women to duty on vessels of the Navy other than hospital ships and transports. The proposed change would permit the Secretary of the Navy to prescribe a greater variety of shipboard duty to which women members may be assigned. The modification would permit assignment of women to temporary duty on any vessels not engaged in combat missions, and to permanent duty on vessels similar to hospital ships and transports which would not be expected to be assigned combat missions. It is currently under coordination review by the other armed services, upon completion of which it will be forwarded to the Department of Defense for consideration.

## Adjusted Selective

**Reenlistment Bonus Program Levels Announced** ● Selective reenlistment bonus award levels have been increased for 10 ratings in Zone A (ABE, AC, AT, CTI, CTM, DS, FTM, GMM, MM, and TD) and nine ratings in Zone B (CTM, DS, EM, FTB, FTM, GMM, GMT, MM and STG). Additionally, seven ratings have been added to Zone B (ABE, AC, CTR, CTT, FTG, IC, and OS). Award levels for four ratings in Zone A (CTO, OM, OS, and OT) and one rating in Zone B (OT) were reduced or eliminated. In a change from previous years, the increased bonus levels are effective immediately. Details are in NavOp 025/77.

## Navy Team Wins

**North American Bobsled Championship** ● A U.S. Navy two-man bobsled driven by NCC Robert W. Huscher and his brakeman, HTC Dennis G. Sprenkle, won the North American Two-Man Bobsled Championship Race at Lake Placid, N.Y., recently. The Navy has represented the U.S. at the last three Winter Olympics and seven world championships. Over the last 12 years, the Navy team has won nine North American and nine national championships at Lake Placid, site of the 1980 Winter Olympic Games.

## Navy Housing

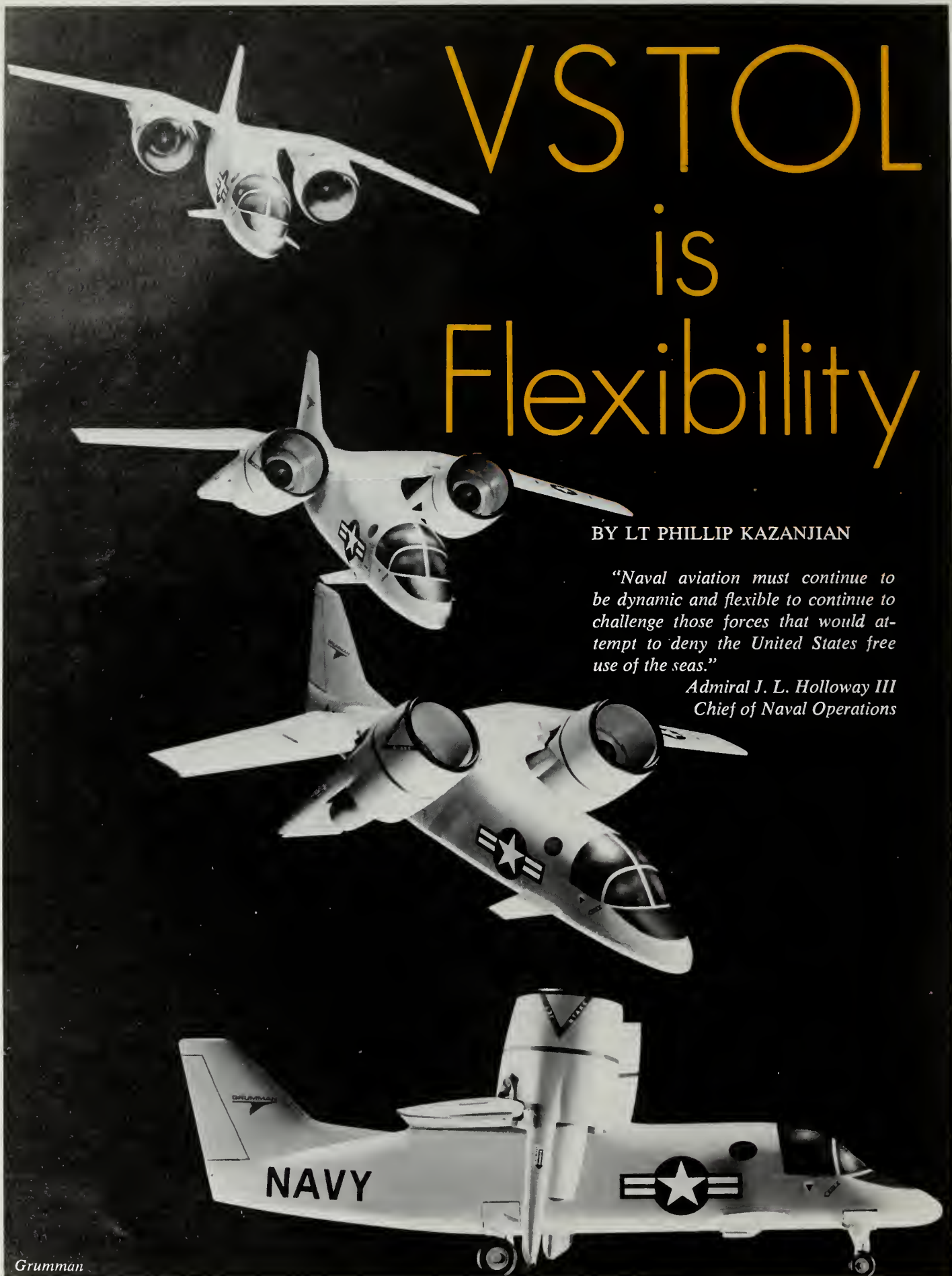
**Policies Revised** ● Effective this July, families of all enlisted personnel and officers O-3 and below, will be assigned government housing based on family size regardless of pay grade. Officers O-4 and above will continue to be assigned housing based on their rank as well as family size. Families already on housing waiting lists may continue to be assigned housing according to their original requests until July 1. This will provide a transition period to aid those personnel who would otherwise lose entitlement because of the change in criteria. However, no more additions to waiting lists may be made contrary to the new policy. Families on waiting lists who do not receive a housing assignment by July 1 will automatically be placed on the appropriate list to which they are entitled under the revised policy. In another housing eligibility change, families of eligible Navy men who receive orders for short, unaccompanied tours will be able to remain in government housing until their sponsors return home or report to the next permanent duty station not considered an unaccompanied tour. Full details on these housing policy changes are contained in NavOp 016/77.

# VSTOL is Flexibility

BY LT PHILLIP KAZANJIAN

*"Naval aviation must continue to be dynamic and flexible to continue to challenge those forces that would attempt to deny the United States free use of the seas."*

*Admiral J. L. Holloway III  
Chief of Naval Operations*



Grumman



The Navy is planning to launch a bold new program for the development of vertical or short takeoff and landing (VSTOL) aircraft. It is expected that VSTOL aircraft will vastly alter the course of naval aviation because they can be launched from cruisers, destroyers, frigates and other fleet units, thereby expanding their capabilities.

Just what this will mean in terms of a better prepared and more effective Navy was explained by the Chief of Naval Operations. He said that the VSTOL aircraft will benefit the sea service in at least two major ways: "A marked improvement in flexibility of air operations and increased survivability of air assets."

Greater flexibility is achieved through increased sea-based air power by deploying VSTOL aircraft on smaller warships in concert with large aircraft carriers. Such an arrangement will permit Navy air power to be extended to widely separated trouble spots without having to dispatch an overwhelming task force to any one specific area.

Survivability will also be enhanced by the Navy's ability to disperse air forces over a large area with a minimum of ship involvement and without requiring the use of only one type of vessel to carry all aircraft. In such a situation, the loss of any single ship would not be decisive in a naval engagement.

The transition from conventional takeoff and land aircraft to a VSTOL-oriented Navy is made easier because there are today more than 100 ships in the fleet such as aircraft carriers, cruisers, amphibious ships and replenishment ships which could operate VSTOL aircraft with slight or no modifications. Additionally, almost every new warship now in the planning stages will incorporate a fair-

sized flight deck in its design. These decks, originally designed for use in helicopter operations, are big enough to accommodate a VSTOL plane.

VSTOL will also vastly expand the "horizons" of each combatant ship. Such expansion will be both in search and surveillance, and in actual ship-to-ship and ship-to-shore naval engagements.

Naval officials and VSTOL designers now believe that VSTOL and the supporting technologies have advanced to the stage where a few basic types of aircraft can be developed and missionized to meet specific missions, rather than separate designs being used to fulfill individual assignments. Basically, two types are envisioned:

- Type "A" VSTOL could consist of a general purpose subsonic aircraft; its missionized versions can be used for antisubmarine warfare, airborne early warning, air cargo delivery, marine assault, search and rescue operations, tanker and other missions. Thus, in one basic VSTOL airframe, the Navy and Marine Corps could have the flexibility of performing a variety of subsonic missions.

- Type "B" VSTOL would be a multimission, high performance tactical aircraft which can be missionized for fighter, attack, and reconnaissance tasks.

Admiral Holloway recently said, "With a substantial research and development effort, it is conceivable that a type "A" VSTOL aircraft could have an Initial Operational Capacity (IOC) in the fleet sometime between 1987 and 1992. With similar acceleration and emphasis on development, the type "B" could have an IOC

somewhere between 1993 and 1997."

Today's aircraft carrier is universally acknowledged as an awesomely powerful weapons system, but each carrier can only carry its aircraft to one area at a time; the number of carriers also is limited. Foreseeable commitments, plus the best estimates for contingencies that may arise, will require more than a dozen aircraft carriers, naval officials predict. VSTOL aircraft will operate equally well from the large aircraft carrier and offer it added flexibility. Additionally, VSTOL permits the design of smaller carriers and air capable ships with which to satisfy Navy worldwide commitments.

According to the findings of a recent National Security Council study, no more than a dozen large carriers will be available to the Navy through the 1980s and 1990s. The plan is to replace each large carrier phased out of the naval ship inventory with two or three smaller carriers which could be designed to exploit fully the advantages of VSTOL. These new carriers, along with other VSTOL capable ships are expected to give the Navy a multitude of functional air platforms at sea.

It is interesting to note that during World War II, the Navy had about 100 carriers of various types (mostly "jeep" carriers) compared to 13 large carriers in the Navy inventory today. With the introduction of VSTOL aircraft, however, the Navy may again have 100 plus aircraft-carrying ships as it enters the 21st century. (—>)

# VSTOL is Flexibility

Since the Navy may one day be using VSTOL aircraft to the exclusion of practically every other type of plane, a number of aircraft manufacturers are investigating conceptual designs for VSTOL. Most companies are investigating a variety of designs with different propulsion systems. Since the Navy is still in the conceptual

phase of the VSTOL program, there are no firm designs yet. A sampling of some of the current conceptual designs of VSTOL aircraft follows:

- A Boeing design for Type "A" VSTOL, model 1041, was designed for antisubmarine warfare missions. It has a gross weight of 37,000 pounds, a length of 48 feet and a

Boeing







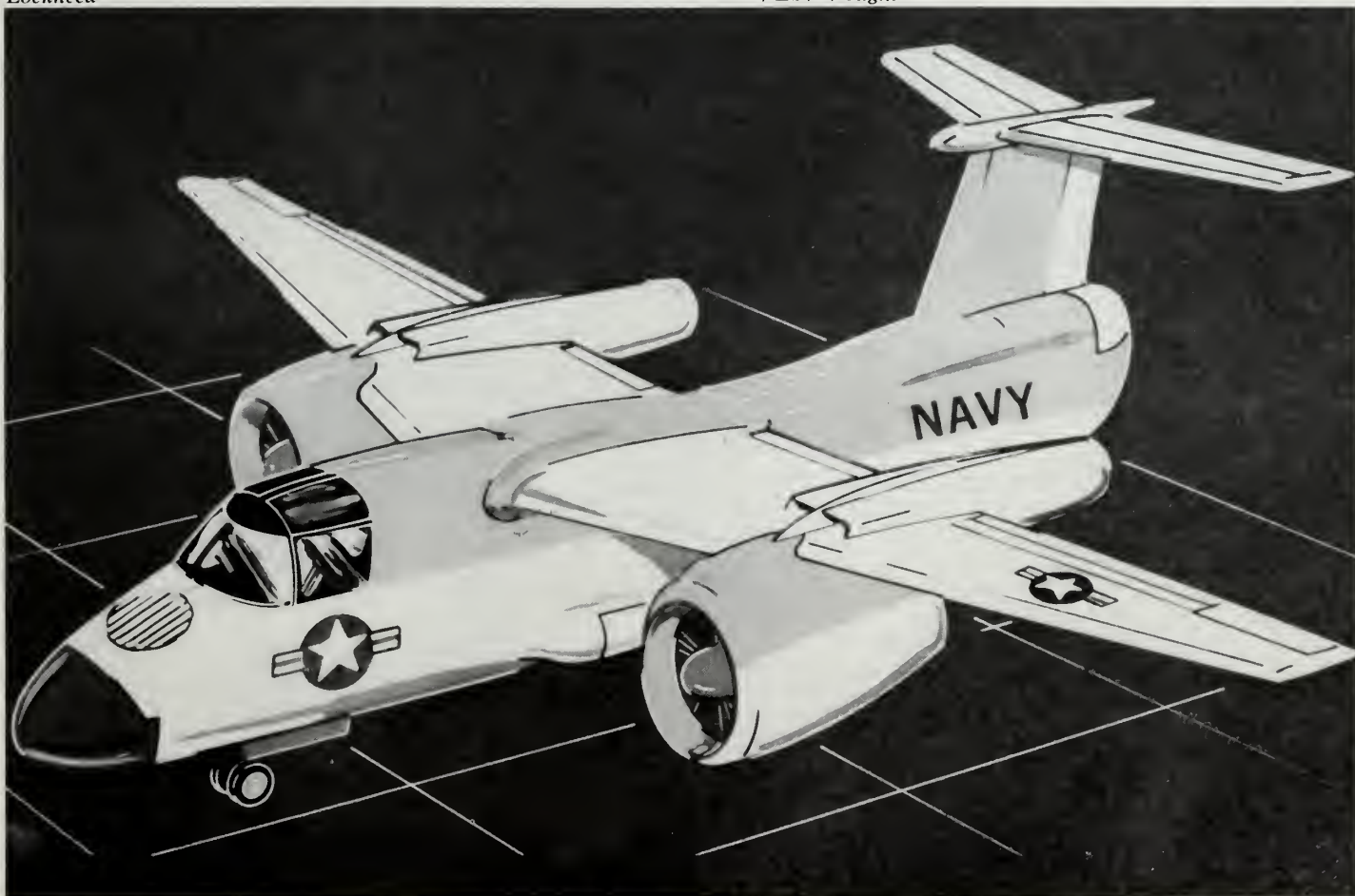
Lockheed

↑ LTV Vought

wingspan of 41 feet. The model 1041 is powered by two jet engines driving three lift/cruise fans, two located on the fuselage over the wings and one inside the nose.

- General Dynamics has designed a VSTOL Type "B" delta wing supersonic interceptor. Thrust for the aircraft is provided by two lift engines mounted behind the cockpit and a third engine designed for lift and cruise flight. According to General Dynamics, the aircraft can be used for supersonic intercept, subsonic surveillance and close air support.

- Grumman has a VSTOL Type "A" design which evolved from its NUTCRACKER studies. It is powered by two turbo fan engines mounted

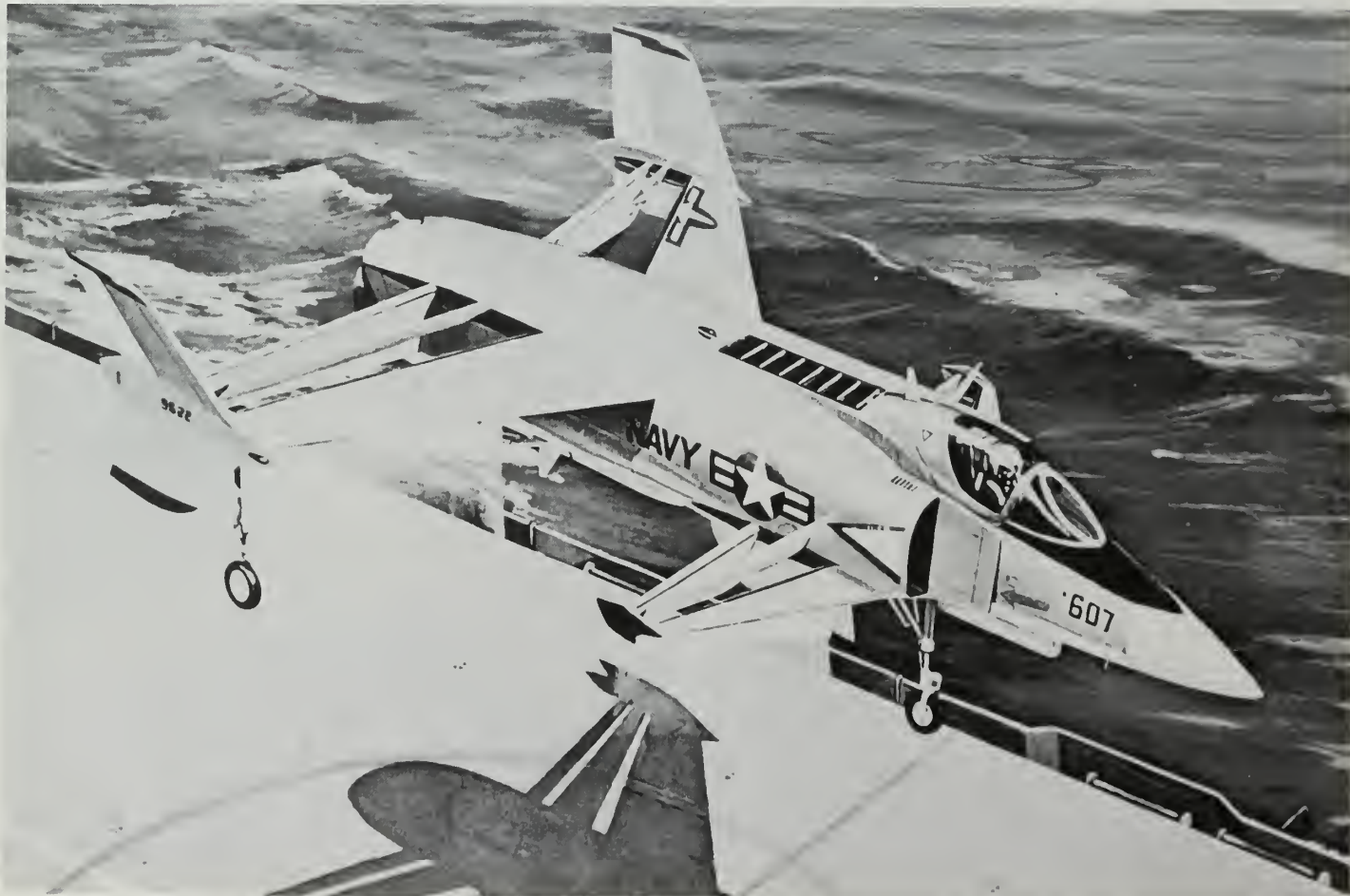


# VSTOL is Flexibility

*McDonnell Douglas*



*Rockwell "B"*





in wing pods that rotate about the leading edge of the wing for vertical flight. Control in the hover mode is provided by aerodynamic surfaces in the exhaust flow.

- LTV is studying several Type "A" VSTOL designs. This design is powered by two turbine engines connected to three lift/cruise fans. The lift fan in the nose of the aircraft operates only during takeoff and landing.

- A Lockheed design for the Type "A" VSTOL aircraft uses a deck run of 400 feet for takeoff from large ships, as do all other Type "A" designs. For smaller ships such as a DD-963 class, the designs operate in vertical takeoff mode at a reduced takeoff weight. Landings, with fuel *Rockwell "A"*

and stores expended, or cargo and troops offloaded, could be made vertically on almost any ship with deck space sufficient to spot an aircraft.

- McDonnell Douglas design model 260 is a Type "A" subsonic VSTOL aircraft powered by two turbine engines which provide thrust for three lift/cruise fans. The model 260 features the availability of three different fuselage sizes, allowing a broad spectrum of potential missions. Model 260 will be capable of flying higher and faster than the helicopters it is designed to replace, and carry payloads of up to 10,000 pounds.

- Rockwell International has designed and constructed a Type "B" VSTOL aircraft called the XFV-12A.

This supersonic tactical prototype is powered by a single jet engine with engine air diverted by a valve to nozzles directed at the wing flaps.

- Rockwell also has under study several candidate Type "A" designs. The NA-410 design is powered by four turbine engines connected to four lift/cruise fans which are mounted in wing pods. ⚓



## Transient Life

# Moving Through the System

BY JOI JOHN YONEMURA

Sailors remember their boot camp days, their first ships and their first overseas assignments—times of mixed emotions, but generally pleasant ones. But one period many sailors blot from their minds is the short—or long—period they spent as transients.

Transients are a peculiar breed—they're neither fish nor fowl, ship's company nor permanent base residents. Traditionally, they are a ready source of manpower for any working party that comes down the pike. They have been assigned duty as messengers, watch standers, or supply handlers. Other times, they have been just plain idlers on whom time hung heavy. Today, however, the Navy traveler temporarily by the wayside can take heart. That is, if the Norfolk Experiment takes hold.

The experiment came about because the transient situation there called for drastic change. In 1974, there were upwards of 3,000 transients aboard the Norfolk Naval Station. Open-bay barracks offered none of the comforts of home. Sailors were rarely employed in rate-related work and duty assignments were menial. If, Davey Jones forbid, one's record got lost, there was no telling how long a person might live the life of a transient.

Naval Station Commanding Officer Captain Paul L. Merwin started doing something about the situation when he arrived in September 1974. "One of the basic steps, as I saw it, was to have an organization which was set up to deal strictly with transients," he said.

At that time, a single personnel department handled personnel matters for both ship's company and transients, a population spread all over the base. Through Self-Help efforts, offices were constructed in a wing of an open-bay barracks, and the Transient Personnel Department (TPD)



came into being.

Early in the revamping, Capt. Merwin discovered an unexpected asset, Senior Chief Personnelman John A. Simon, who was serving as a counselor at the local Correctional Center. Chief Simon had extensive experience in transient operations.

"The counselor program is very important, but I felt it was more important to put Chief Simon's experience to work," the captain said.

"The immediate emphasis for us was to drastically reduce the numbers of transients onboard," said Simon. "Get the numbers down." From 3,000 in 1974, the number dropped to an average of 500 transients onboard in 1975. It remained at that figure

*New transients are added to the strength report before receiving work assignments.* through the first three months of 1977.

Then, Commander Marvin L. Ball, Jr., became head of TPD in August 1975 and started refining the operation and the use of computer readouts as a management tool. The result was increased efficiency in processing transients.

"Data Processing Center, Atlantic provides us daily listings of everyone for whom we are responsible including their names, rates, social security numbers and why we have them aboard," Ball said. "It tells me which office is handling a person's record and who is responsible for moving him through the system.

"We are the only unit in the Navy



to have a locator system this complete for processing transients. I'd hate to run this operation without it."

By keeping the number around 500, Norfolk is processing people rapidly. A sailor awaiting further transfer for school or sea duty used to count on two to three weeks in Norfolk. Today the stay is three to four days, depending on the individual situation.

One byproduct of the transient reduction was a corresponding drop in disciplinary problems—crime onboard the base. This was recognized by the local attorney association by giving Capt. Merwin The Liberty Bell Award for 1976. The award is for enhancing law and order.

While the number of transients was being reduced, control and security of the barracks was being improved. In

*"We have tried to  
give a little privacy. . . .  
It's not the  
Hilton, but it's  
clean."*

order to keep tabs on who is doing what during the working day transients are now required to show ID cards to enter the berthing spaces. They must be on an access list as well.

So processing the transient has drastically improved. How about the living conditions?

The most common criticism of the open-bay barracks is the lack of privacy or the boot camp atmosphere. According to Ball, this type of berthing has proven to be the most efficient for transient operations simply because so many are moving in and out every day.

Capt. Merwin agrees, "We have tried to give a little privacy with partitions between the bunks, but open-bay barracks are proper. It's not the Hilton, but it's clean."

Unlike other transient operations, bunks are made up by the sailors checking out and these are ready for the new transients coming in. Gone is the sight of transients carrying linen between buildings.

Many transients still complain about impersonal treatment. "Just like any other job, we sometimes get into a rut seeing the same things day in and day out. It can get to you," said Personnelman 1st Class Carl J. Riehn, Transient Receiving Supervisor. "But we are continually improving conditions," he added.

Then, there are the work assignments. Wherever possible, rating is taken into consideration. Corpsmen and dental technicians are assigned to the base dispensary. Non-rated people are assigned to those jobs that have to be done, but for which no one is permanently assigned.

One problem in the past has been too much dead time, when transients had to "stand by," but were given nothing to do. With the reorganization of the first lieutenant's office in conjunction with TPD's work assignment office, transients were given work assignments on a daily basis—painting and cleaning barracks, working in the mess hall and cleaning and maintaining the grounds. One result of this effort was the Keep America Beautiful Award won recently by the Naval Station (see All Hands, Feb. 1977).

First and second class petty officers, unless they are medical holds, are assigned as brig chasers for legal holds. They pick up, deliver or escort the restricted disciplinary holds whenever necessary. This is port and starboard duty—24 hours on, 24 hours off.

The masters at arms ensure that

*"Here they get a  
refresher course  
on the 'squared  
away' sailor."*

the transients meet Navy uniform regulations and grooming standards on a daily basis. At least two formal inspections are held each week by senior officers.

"It wasn't like this on my ship," many say. But Interior Communications Electrician 1st Class Gary L. Himes, himself a transient, feels that the inspections are beneficial. "Some-

times, sailors, over time, become lax and forget the regs. Here they get a refresher course on the 'squared away sailor,'" he said.

"One of the more important things during the inspection," said Capt. Merwin, "is that we talk to each man and let him know that we are concerned."

Questions are answered after each inspection so that transients can make their problems known.

A recent innovation is a survey form which is filled out by transients checking out. Most of the comments are complimentary.

TPD NavSta Norfolk is recognized by the Bureau of Naval Personnel as the most efficient transient processing unit in the Navy. However, there are no written directives which standardize transient operations Navy-wide. Every activity is different. However, an attempt is being made to rectify this.

In December 1976, BuPers hosted a meeting concerning transient operations. "It was the very first time some of us in the transient field were able to get together to discuss common problems with the people from the Bureau," said Simon. He went on, "We were able to ask questions that we normally don't ask over the phone. This has opened the door for improved communications."

If the concept of a central, separate command to handle transients is adopted, Norfolk will most likely serve as the model. More than 21,000 sailors pass through the TPD, Norfolk each year, by far the largest in the Navy.

Memories of being a transient will never stand beside those classics of Navy life—sea duty, or the first foreign port visit—but thanks to the Norfolk Experiment, they may not be so traumatic in the future. Instead, memories of transient life will be filed under "experience"—a not so pleasant time, but a very efficient transition. ⚓

# It's more than learning how to fly

STORY BY JO1 JERRY ATCHISON.  
PHOTOS BY PH2 DWAIN PATTON  
AND JO1 ATCHISON.

The Navy student pilot sipped his predawn cup of coffee and made some rather surprising remarks:

"Anybody can learn to fly an airplane. A person can pick up the routine things that often make flying no more complicated than driving the family car."

It takes more than a year to train a Naval Aviator. It is a year filled with 18-hour days and hundreds of hours of instruction, study, flying and physical training. It all occurs at a pace that most would describe as brutal.

How can he call it all easy?

"Out there, teaching people 'how to fly airplanes' is not the real job. At Pensacola, teaching people how to become Naval Aviators is the name of the game . . . and there's

a whole world of difference."

Naval Aviators—and, they now include a growing number of women—describe themselves unabashedly as "the best damn pilots in the world." While their counterparts in the other services may not be so enthusiastic about that description, the notion exists that if a Navy pilot can't do it in the air, then it probably can't be done.

All Navy pilots share—besides their "Wings of Gold"—the common experience of flight training at the Naval Air Station, Pensacola, Fla. It is there that they learn the difference between being a "person who flies airplanes" and a Naval Aviator.

For many Aviation Officer Candidates (AOCs), the first step on the road to winning their wings is a hard landing at "INDOC."

AOCs entering the program directly from civilian life step from

the bus at Pensacola and are "greeted" by a Marine Corps drill instructor intent upon one thing—ensuring a quick transition from civilian to military life.

The head drill instructor, Master Sergeant Johnny Frady, explained why that change was so important.

"The AOCs have got to be ready to start training as Naval Aviators when they leave here. They are ready because my DIs teach them four things: drill, discipline, inspection and respect.

As Frady spoke, a shouted chorus of "YES, SIR" came echoing through the window.

"Of the four, discipline—particularly self-discipline—is perhaps the

*(Continued on page 16)*

*Below: GOING, GOING . . . GONE. The new AOC gets a haircut and starts the process of Naval aviation training.*









*Top: The first "friend" of every aviation student is his drill instructor. Right: From the sea gull's viewpoint, aviation students learn how to sail. Above: CDR H. E. Stafford heads the Survival Training Department . . . because he survived.*





*Top to bottom: Aviation students dash through the obstacle course, are shot from ejection seats, dragged from bed before dawn and prepare to fly under the instructor's watchful eye.*

*All Navy pilots begin with propeller driven aircraft. Some will go to jets (below) while others may become helicopter pilots, Navy flight officers or any of a number of other aviation jobs.*



most important lesson they will learn."

That lesson is quickly driven home to the fledgling candidates. During their week of "INDOC" they face full days of processing, classes and physical training. The conclusion of the day's last class, they learn, does not mean training is ended, for, back at the barracks, their drill instructor waits.

"The pressure put on them by their DI achieves another result," Frady said. "They quickly learn that to get through the first 12 weeks, they've got to develop respect for their peers. They learn to count on each other."

Teamwork is an important principle among Navy pilots. As one pilot, years removed from those first weeks of training put it: "It takes a mighty big team just to put a plane in the air. And it takes a team of pilots with trust in each other's abilities to make the airborne mission a success."

The AOCs quickly settle into training that moves along at a mind-and body-numbing pace. The two basic areas of their work are divided between officer training and aviation training.

Officer training includes classes in math, physics, naval history, world affairs, officer development and seamanship.



‘...if a Navy pilot  
can’t do it in the air,  
then it probably  
can’t be done.’

Seamanship for aviation officers?

“Pilots or not, the fact is that they are training to become Navy officers,” one instructor said. “Besides, aviators go on to become ship’s skippers in many cases.”

Their aviation training time is taken up by engineering and aeronautics classes, aviation physiology (what can happen to the body in the rarefied atmosphere in which pilots fly) and survival.

The Survival Training Department is where many AOCs find themselves spending a great deal of time. They all get to know the department head who possesses a particular set of qualifications for his job—he survived.

As Commander H. E. “A” Stafford put it: “I survived a tour of duty in Hanoi as a prisoner of war. I think I’m qualified.”

He was quick to say, however, that his department doesn’t teach POW matters. “Somebody who’s not as subjective about the whole thing would teach it far better than I,” he said.

What Stafford’s people teach is how to make sure the Navy pilot can deal with the “incidents” that could permanently interrupt a naval aviation career.

“The pilot needs to know how to use a parachute, how to walk a straight line in the woods. He’s going to have to know how to catch a snake and cook a rabbit and how to build a tent with his parachute.”

To learn these lessons, the students are shot down a rail and tipped upside down in a swimming pool aboard the “Dilbert Dunker”—a device that simulates ditching at sea. They practice simulated parachute drops into the water, are towed with a parachute harness behind a boat in

the Gulf of Mexico and are “rescued” by helicopter from the water.

To top off their survival training, the students are sent deep into the woods of nearby Eglin Air Force Base where, for a day and a half, they learn to live off the land.

“‘Survival of the fittest’ is just one reason why we stress physical fitness,” Stafford said. “You’ve also got to remember that it takes a physically fit man to stand the stresses of supersonic flight and, sometimes, muscle around a 25-ton airplane.”

For many AOCs, meeting the physical standards can be the toughest obstacle they must overcome on the way to getting their wings. And the center of much of that trouble is—appropriately enough—the obstacle course.

“I’ve never been in such good shape in my life,” one student gasped at the end of the course, “But I still haven’t been able to get through this thing in the time allowed.”

He kicked at the sand and, still fighting for breath, returned to the end of the line to await another shot at the course.

Those first 13 weeks of an AOC’s life are filled with just about everything but flying airplanes. It is a time when those who can’t meet the rigid standards of naval aviation fall by the wayside.

More important, it is a time when the students who meet those standards also develop an appreciation for their importance.

As one student said on the eve of receiving his wings, more than a year after leaving AOCs, “It may sound funny to the new AOCs, but

outside of my flight instructors, the most important instructor I had was my DI—black heart and all.”

“It’s over,” the newly commissioned ensign said as he fingered his shiny gold bars.

The commissioning ceremony capped the weeks of Aviation Officer Candidate School. But what the new ensign didn’t say in the excitement of the moment was, that far from having completed all training requirements, he was just beginning. Ahead lay months of primary, basic and advanced flight instruction. Only after successful completion of all that would a set of wings join the rank devices on his uniform.

Whiting Field is only 30 miles from Pensacola, but it holds a completely different world for the would-be Navy pilot. Rows of T-28 *Trojan* aircraft form its center.

With the new environment comes a new language:

“This FAM flight will give you a good chance to work on your VFR approaches,” the instructor briefed the students as they headed for the flight line.

The candidate pilots are understandably excited about getting their hands on an airplane. But their initial excitement is tempered with a few weeks of ground school, complete with—more classes! This time, however, the subjects include the specific business of airplane flying.

The theory of the classroom soon moves toward reality in the flight simulators. Row upon row of simulators are located in the training aids building.

The looks of concentration on the students’ faces underscore that these simulators recreate practically every aspect of flying—except

'You can back off the power now son, we've got you nice and safe.'

leaving the ground.

At ground school, also, many discover that the pressure previously provided by their AOC drill instructor has been replaced by the pressure of having to assimilate vast amounts of information required by a professional pilot.

"They handed me the texts and the course schedule and told me to get cracking," a Marine Corps Second Lieutenant said. "I took one look at the stack, went home and told my wife I'd see her in about six months."

But, as the Marine continued, it became evident that good can come from even the toughest situation.

"As my self-styled quizzer she's not only helped me to learn the information, but also knows as much about flying as I do.

"The other day we were driving down the highway when she turned to me and said with her sweetest voice, 'You've just suffered hydraulic failure at 10,000 feet. What are your emergency procedures?'"

"All I could do was pull to the side of the road and sit there shaking my head."

Training proceeds under the assumption that each lesson must be mastered before moving on to the next.

Because of this, many students felt much as one ensign did after he completed his first solo flight:

"No, I wasn't really excited about soloing. The only difference was, that on this flight, I had no one to talk to in the other seat."

It was not until later—during the basic training phase for jet students—that some real excitement popped up.

"They've got true-to-life simulators around here for every phase of flying but one," the jet student said. "There's just no way you're going to learn what it's like landing

on a carrier flight deck until you've landed on that flight deck."

Two other students sitting around the ready room table shared that feeling:

"We had practiced landing in an area on land outlined as the flight deck. Our instructors kept telling us that there was still a big difference between that land mock-up and a ship moving through the water.

"The weekend before we were scheduled to land on *Lexington*, Bob, here, and I went aboard when she was tied up. A couple of sailors obviously knew we were jet students getting ready for our first trap (landing) because they came over and volunteered to show us around."

The three grew more animated as they described the day of the trap. Hands became airplanes banking, then leveling off for that first approach.

"First we did two 'touch-and-goes' to get the feeling of the deck," one said. "I came around that last time to make the landing and, just



for a second, thought, 'Hey, this is what it's all about.'"

The student's brief thought about something other than the job at hand might explain why he "... bolted. I just missed all the wires and kept right on going. I came around and set up for another shot at it.

"It all happens so fast. First I was just about ready to touch down and the next thing I knew I was on the flight deck and all these people in different colored jerseys were scrambling over my plane.

"Over my radio I could hear a voice saying, 'You can back off the power now, son, we've got you nice and safe.'"

Flight training goes on at a number of fields in the South. But Pensacola is the hub of that training. Jet pilots are trained. But so, too, are multiengine pilots, helicopter pilots, Navy flight officers, flight surgeons, aviation maintenance officers and many others. Thousands of teachers and instructors work together toward a common goal.

One newly designated Naval Aviator summed it up. "I couldn't believe it. I'd been through every conceivable training exercise and never got really nervous or upset. But there I was, the night before I received my wings, pacing around the BOQ in a cold sweat.

"All I could think about was 'Something's going to go wrong. They're going to figure out some reason why I can't get my wings tomorrow.'

"I couldn't believe it. I go through a year and a half of training and the one time I'm a nervous wreck is after the training is over."

Those wings meant a lot to that pilot, as they do to all Navy aviators. They mean a lot because Pensacola didn't teach them how to fly airplanes. It taught them how to be Naval Aviators.

"... and that's a whole world of difference." ✈



# Bearings

## They Built Their Own

It's a fact. The faster something moves, the harder it's going to stop when it meets something immovable.

Two crewmen on the Navy's high-speed developmental hydrofoil *High Point* (PCH 1) decided that was one fact they didn't want to face, so they did something about it.

Operations Specialist 1st Class Richard Plumb and Electronics Technician 1st Class Richard Elmore designed and installed a unique Tactical

Navigation and Collision Avoidance System they aptly named TANCAV.

To hear Plumb describe it, the idea behind TANCAV was very simple: "We can watch weather satellite pictures over the United States every night on TV so why not superimpose a radar video over our navigation charts?"

Why not? The idea was so successful that the two received letters of recognition from the President of the United States commending them for their vital contribution to improving

government operations and outstanding example set in their work.

But coming up with a replacement for conventional navigation techniques that are insufficient and potentially dangerous at high speeds was only a start for the two.

They are still hard at work refining their TANCAV system with an eye toward the possibilities it holds for the fleet. Already the Patrol Hydrofoil Missile (PHM) program has recognized the significance of and the need for TANCAV and will be installing it on *Pegasus* (PHM 1) and follow-on hydrofoils.

Because of TANCAV's simplicity, large amount of information and data provided and huge dollar savings in manpower alone, it may some day benefit conventional naval ships as well as these advanced, high-speed vessels.

And if things do go bump in the night around *High Point* in spite of TANCAV, you won't be able to blame Plumb and Elmore.



## Quits 'See-Food' Diet

"Tiny" is a nickname often tacked lightheartedly on overweight people. One "Tiny" who got tired of the nickname and all it implied is David Heinitz.

Heinitz, an Aviation machinist's mate 2nd class assigned to Attack Squadron 128, dropped 110 pounds over a nine-month period by cutting out sweets and starches, and by jogging up to 10 miles a day.

After he quit smoking awhile back he went on what he called a "see-food" diet. "Everything I saw, I ate," he said. In less than a year he had put on 131 pounds—blossoming to a corpulent 338 pounds.

His diet began after his body started rebelling against the excess weight.

# Bearings

High blood pressure and heart palpitations were the initial symptoms. Fainting spells that put him into the hospital convinced him he would have to put a stop to his “see-food” diet.

But health concerns were not the only reason for his diet. “I was scared I would be kicked out of the Navy,” he said.

If Heinitz had left the Navy, he would have worn farmer’s coveralls at his farewell party; they were the only clothes he could purchase to fit his exploding girth.

Today, 228-pound David Heinitz is small enough to have dropped the scornful nickname “Tiny” along with his weight. “Some people say I don’t live,” he said. “But believe me, I enjoy life and I want to be around when my kids are growing up.”



One thing is for sure. As his kids do grow up, their father is going to have some interesting “see-stories” to relate.

## Little Guy Does Big Job

Navy tugboats customarily do not include ice breaking as part of their duties. This is particularly true of Norfolk-based tugs. But what the Navy and two Naval Station, Norfolk tugboats didn’t count on was the worst winter since 1917-18.

When the Coast Guard requested assistance in clearing the Potomac and James Rivers of ice, aiding shipping and plotting navigation channels, two Navy tugs went to work. The tugs—*Anoka* (YTB 810) and *Wathena* (YTB 825)—began round-the-clock operations that allowed commercial oil barges to transit the rivers and deliver their fuel to energy-starved communities.

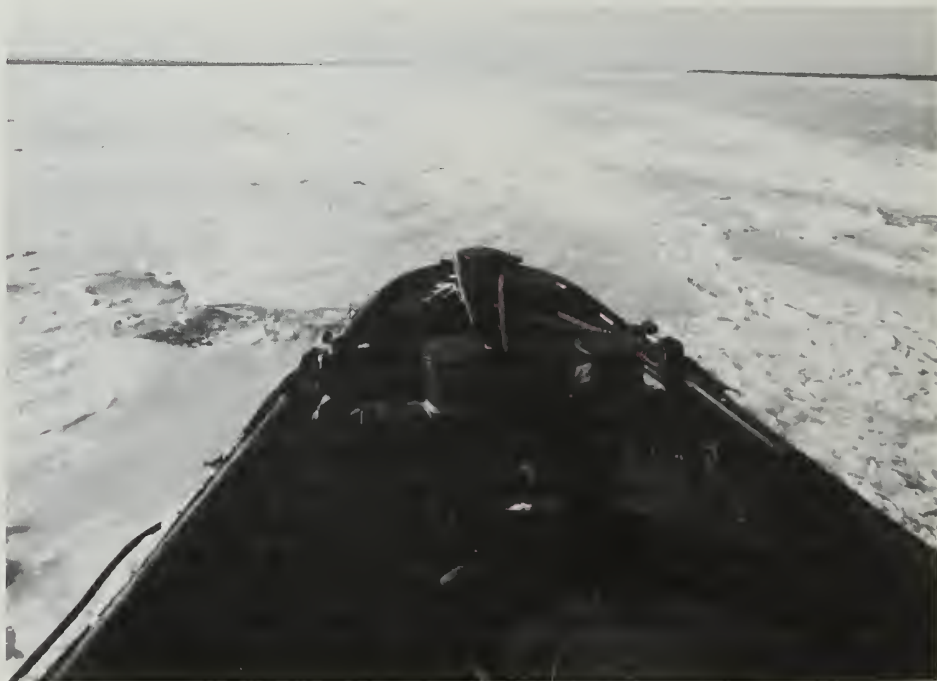
On the James River, *Anoka* worked

more than 30 hours breaking up ice four to six inches thick. As she pushed through the river to Richmond, Va., she reported ice conditions in the channel to the Portsmouth, Va., U. S. Coast Guard Station. They also plotted the positions of several channel marker buoys pushed out of position by the ice.

*Anoka* had two harbor masters aboard who switched duties during the long hours of sustained operations. Also aboard was a Coast Guardsman who plotted the position of the displaced navigation aids in the channel and corrected the charts for safety.

Meanwhile, *Wathena* was plowing her way up the Potomac, a river that one National Weather Service spokesman said hadn’t seen ice in more than 20 years.

Navy tugboats—traditional work horses of harbors and jacks-of-all-trades—have one more job to add to the bag. They’ve proven their ability as ice breakers, thanks (but no thanks) to the winter of 1976-77.





## Cochrane's Threesome

What may be a record for a DDG-size ship occurred aboard USS *Cochrane* (DDG-21) when three chief petty officers were selected for Warrant Officer in a single increment. Trying on

their new collar devices are (from left), WO2s Daniel Fugate (Ordnance Technician), Floyd Ramsey (Operations Technician) and Herman Benjamin (Engineering Technician). The only hitch was, that with their new ranks came orders to new duty stations.



## They Swamped 'Globe'

Can a rock dance band find happiness at a formal concert sponsored by the American Consulate in Karachi, Pakistan?

Members of "Globe," an amateur group aboard USS *Pharris* (FF 1094) got a chance to find out lately when their ship made a routine port visit to Karachi in conjunction with the Central Treaty Organization Joint Exercise MIDLINK 76.

More than 600 people of all ages showed up at the Pakistani-American Cultural Center for the Globe's performance. The band members, knowing that audience exuberance is not part of local custom, were a bit perplexed when their music started—first hand-clapping, then dancing in the aisles. If things weren't disconcerting

enough, "Globe" found themselves swamped by newfound fans backstage following a 45-minute encore.

"Globe" found that they had, in the words of one American Consulate official, "... done a job the United States can be proud of."

## Milwaukee ... 'Si'

Have you ever had shore patrol duty in a non-English-speaking country? If you have, you know it can be frustrating and often embarrassing (especially if you don't speak the native tongue). But, if you're a USS *Milwaukee* (AOR 2) crewmember, the language barrier is only a minor inconvenience.

On their last Mediterranean cruise *Milwaukee's* Spanish-American crewmembers turned lingual problems into

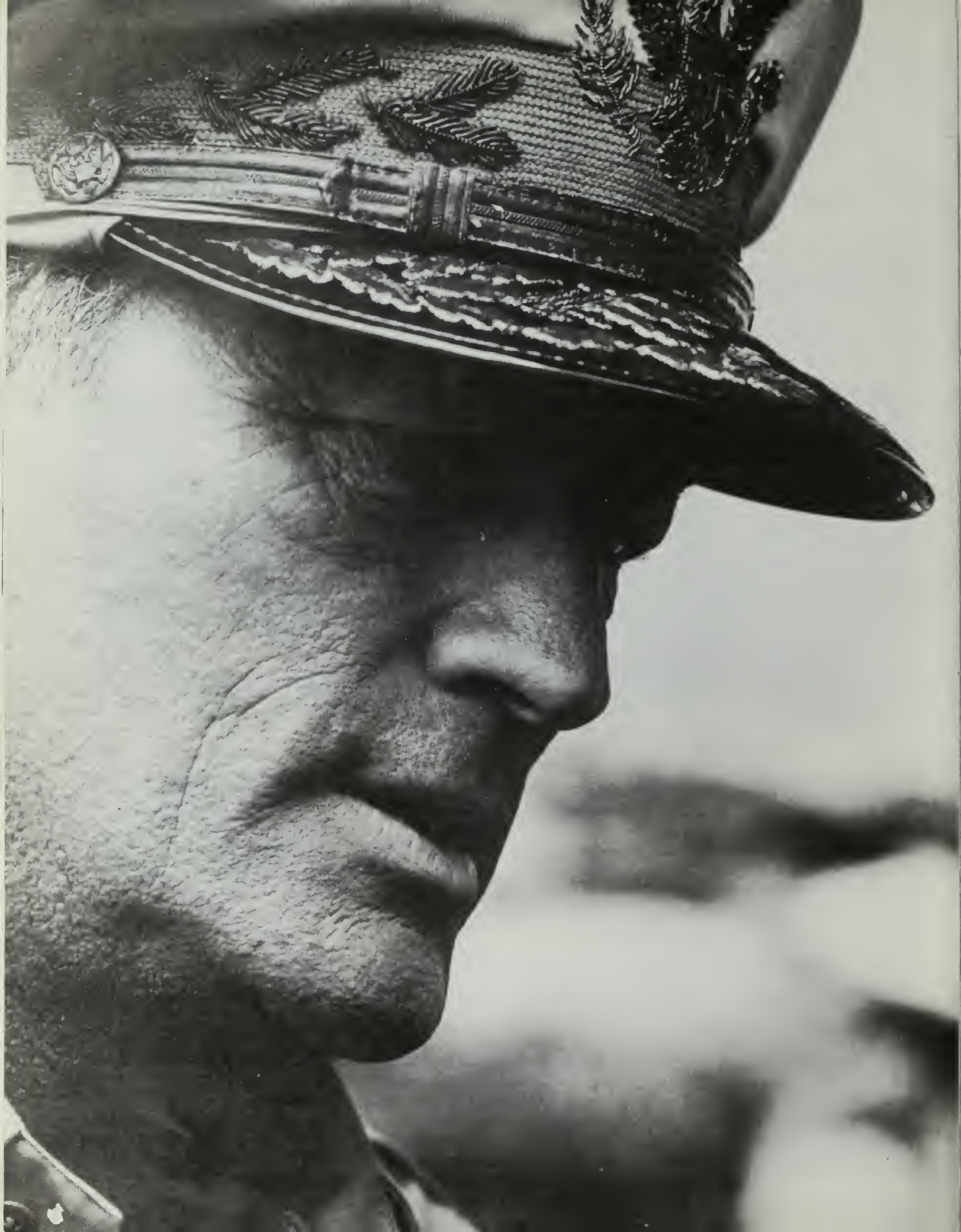
daily routine. They performed duties such as interpreting for the officer-of-the-deck and civilian pilots when entering and leaving port, translating for the commanding officer when VIPs and Spanish naval officers came aboard and, of course, as shore patrolmen in liberty ports.

Their bilingual value, already proven aboard *Milwaukee*, was amplified by an at-sea search and rescue operation during a stormy Mediterranean night. The *Lolita Ferrer*, a Spanish fishing boat with engine failure, was drifting between the coasts of Spain and Algeria. *Milwaukee* Seamen Julian Delgado, Elias Quintana and Bartolo Mendez spent 28 hours helping to coordinate the search, and guiding other ships to the scene by translating information passed by the fishing boat. Their fluency in a second language averted a possible tragedy, and underscored again the value of communication.

## Mids Lead the Way

Navy men and women were among the thousands who participated in the Inaugural Parade that followed the swearing in of Jimmy Carter as the 39th President on January 20. Midshipmen of the U. S. Naval Academy (foreground) are followed by members of the U. S. Navy Band and representatives of the Naval Reserve.







Gen. MacArthur in the Movies

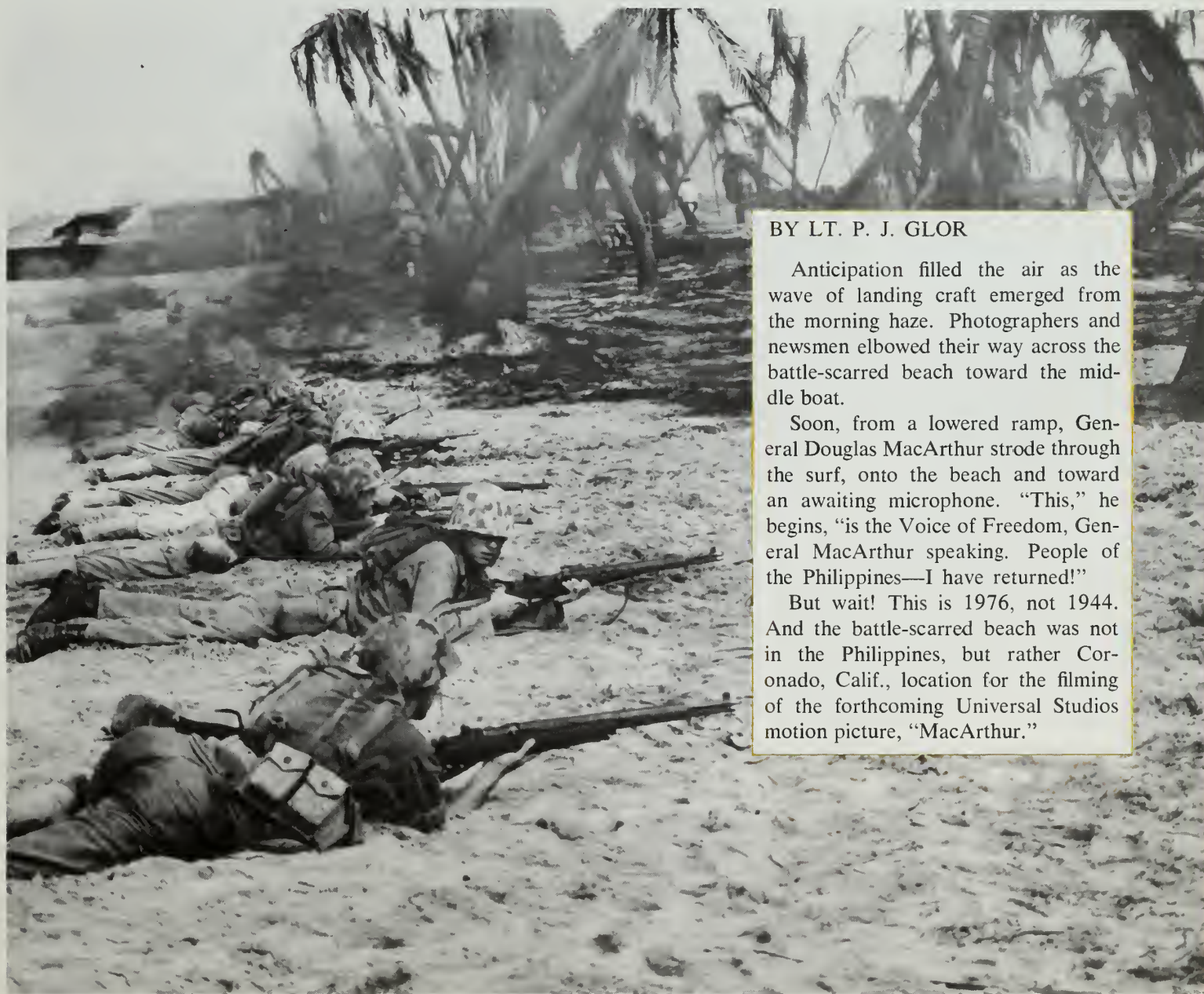
# "This is the Voice of Freedom"

BY LT. P. J. GLOR

Anticipation filled the air as the wave of landing craft emerged from the morning haze. Photographers and newsmen elbowed their way across the battle-scarred beach toward the middle boat.

Soon, from a lowered ramp, General Douglas MacArthur strode through the surf, onto the beach and toward an awaiting microphone. "This," he begins, "is the Voice of Freedom, General MacArthur speaking. People of the Philippines—I have returned!"

But wait! This is 1976, not 1944. And the battle-scarred beach was not in the Philippines, but rather Coronado, Calif., location for the filming of the forthcoming Universal Studios motion picture, "MacArthur."







*Above: Gregory Peck as General Douglas MacArthur wades ashore in a reenactment of the famous World War II scene. Opposite page: Peck shares a light moment with fellow actor Dick O'Neil (center) and Navy Captain A. J. Dillon who found himself cast in a cameo role as the boat officer of MacArthur's landing craft.*

The scene depicting the return of General MacArthur, portrayed by Gregory Peck, was the culmination of a coordinated effort by Navy men and women from eight commands in the San Diego area and Universal Studios. Commander Naval Beach/Amphibious Refresher Training Group One, Captain A. J. Dillon, was designated project coordinator for the reenactment of the landing—originally at Leyte Gulf. Providing the beach, vintage landing craft, vehicles, and the beach party lifeguards was the responsibility of CAPT Dillon. He also acted as technical advisor on amphibious operations.

Close liaison between the film's producer, Frank McCarthy, and the

naval beach group resulted in the selection of the southernmost area of Coronado's "Silver Strand," so as not to interfere with regular amphibious training being conducted on the northern end.

Conversion of the beach to a tropical jungle involved setting approximately 400 artificial palm trees individually in place by construction crews. An elderly local resident attested to the realism by interrupting his daily walk to inform the set foreman, "Planting those South Seas type palm trees here in California is a waste of time and money. They'll never grow here—it's too dry and the soil is not rich enough."

Inoperative vehicles normally used



“People of the Philippines, I have returned.”



in cargo handling training at the Naval Amphibious Base were transformed by the ingenuity of film crews into yellow, wrecked and abandoned “casualties” of the onslaught.

The studio’s task force arrived on October 18, coincidentally the anniversary of the arrival of the naval task force at Leyte. Filming of sequences

related to the landing and rehearsals occupied the first two days leading up to the historic return. The final day’s filming was devoted to combat sequences, complete with pyrotechnic explosions and stunt men “taking hits” from enemy fire.

Spectator interest generated by the filming afforded the opportunity for

“It is fatal to enter any war without the will to win it.”



the Navy to demonstrate landing craft seamanship, modern beach party techniques and equipment.

Upon completion of the filming, the beach was restored to its original ap-

pearance by the studio's construction crew.

And, as it turned out, that local resident was right. Those trees never did take root.

*Recreating the signing of the formal surrender with Japan aboard the battleship USS Missouri—now a memorial at Naval Shipyard, Bremerton, Wash. Photos by Universal Studios and Lt. (jg) R. S. McCulloch.*



# 'Sailors Read with a Purpose'



At NavSta Norfolk, headsets can be plugged in at various locations. Photo by JO1 John Yonemura.

BY JO1 JOHN YONEMURA

When life at sea gets boring there's always Tolkien's *The Hobbit*, Clavell's *Shogun*, or Woodward and Bernstein's *The Final Days*. These and much more are available to almost all Navy people afloat and ashore. The Navy general library program, instituted by the Chief of Naval Education and Training Support (CNETS), has

provided over 500 afloat and nearly 200 ashore libraries with an inventory of more than two and a half million books.

Historically, the first books that sailors took to sea were navigational aids. The first libraries specifically for sailors were established by religious groups during the 18th century. These groups considered only the moral condition of seamen, believing their salvation to be imperative.

The warship USS *Franklin* was the first Navy ship to acquire a library—that was in 1821. The officers and crew purchased the books from the Seamen's Library Committee. Subjects in this afloat library covered voyages, history, geography, navigational aids and religious literature.

By World War I, the Navy Department had assumed official responsibility for the Navy general library program.

Through the years libraries have contributed to the steady rise in the education levels of Navy men and women. But today, not enough sailors are using the service. "A lot of them just don't know the wide range of subjects covered in our libraries," said Miss Nancy Dickinson, one of the Navy's regional librarians.

Called the "Library Lady," Miss Dickinson periodically visits all Navy and Marine Corps libraries in the Potomac Region and Fifth Naval District which extends from Washington, D. C. to South Carolina and also includes the Naval Base, Guantanamo Bay, Cuba. In this way she ensures that books are kept current and that they offer the best possible selection.

"Sailors read with a purpose, not just for escape," she said.

Reading tastes lean heavily toward non-fiction. Subjects include arts and crafts, sports, business management, black studies, psychology, philosophy and history. Lighter reading includes science fiction, westerns and mysteries.

Every Navy ship has a library of sorts. Books are supplied by Naval Supply Center, Norfolk, which distributes all library books Navy-wide. The smallest ships, the mine sweepers, do not get hardbound books every month, but do receive paperbacks monthly. Miss Dickinson is currently outfitting the nuclear carrier USS *Eisenhower* (CVN 69) with a 10,000-volume library.

Libraries aboard submarines, though basically small, have reasonably complete reference sections. In the older SSNs, the libraries are sometimes no more than book carts in the dispensary or wardroom.

Shore libraries offer as complete a selection of reading and study materials as space allows. At Naval Station Norfolk's library, for example, George Washington Uni-



versity maintains a section of their textbooks for local students enrolled in their extension courses.

A service offered by some shore libraries to personnel in their areas is the Auxiliary Library Service Collection. Made up of about 2,000 volumes, this collection is available to any sailor who cannot get a book of professional interest in his particular ship or station library.

"If you are on a ship at sea and want a professional book on strategy, international relations, or the like, and it isn't aboard, you can write us and we'll mail it to you," said Mrs. Grace Deans, librarian at NavSta Norfolk. "It's a good service, but not enough people know about it," she added.

NavSta Norfolk's library also maintains a rental collection. This is a group of 200 books kept current by rotating 24 books each month. "This way we can get books into the library that are popular for four or five months, but which are deadwood after that," Mrs. Deans said. The library can purchase a book in this collection after six months at a much lower price if it desires.

National Library Week, with the overall theme "For a better-read, better-informed America," was initiated in 1958 as the first concerted nationwide effort to arouse interest in libraries and to emphasize the values of reading for people in every walk of life. This year it falls in the third week of April.

Miss Dickinson suggests that the Shipboard Information Training and Entertainment (SITE) System be used to promote shipboard libraries. "Once a month or so, they could review one of the books aboard," she said. "This way the crews would be kept apprised of what books are currently available."

As a young sailor said in 1831: "Consider for yourself the evil of being confined within the walls of a ship without having a single book to read." \*



*Top: Reference books make up one of the most used sections of a Navy library.*

*Above: Miss Nancy Dickinson, one of the Navy's regional librarians, selects books to go aboard a new ship.*

\* *Books Afloat and Ashore*—Skallerup, Harry R.



# Guantanamo Bay Library Serves 6500



BY JO2 DAN WHEELER

Guantanamo Bay's library means different things to different people. To some it's a place to spend lazy Saturday afternoons quietly perusing several of the 20,000 volumes. To others it's an escape into the world of stereo, listening to reel-to-reel or cassette tapes. Still others enjoy browsing among overcrowded shelves, thumbing through recent magazines or even pecking out a quick letter home on one of the available typewriters.

"Of the 6,500 inhabitants here," said Ms. Sharon C. Moroni, base librarian, "about 25 per cent use the facilities regularly; others are infrequent users."

On a good day the library will lend out 150 or more books; on an average day, about 90. There's a "swap shelf" for those who wish to exchange their own paperbacks for something new—no checkout required. Any of the 60 different magazines can be borrowed for periods up to two weeks. Musical selections can't be borrowed,

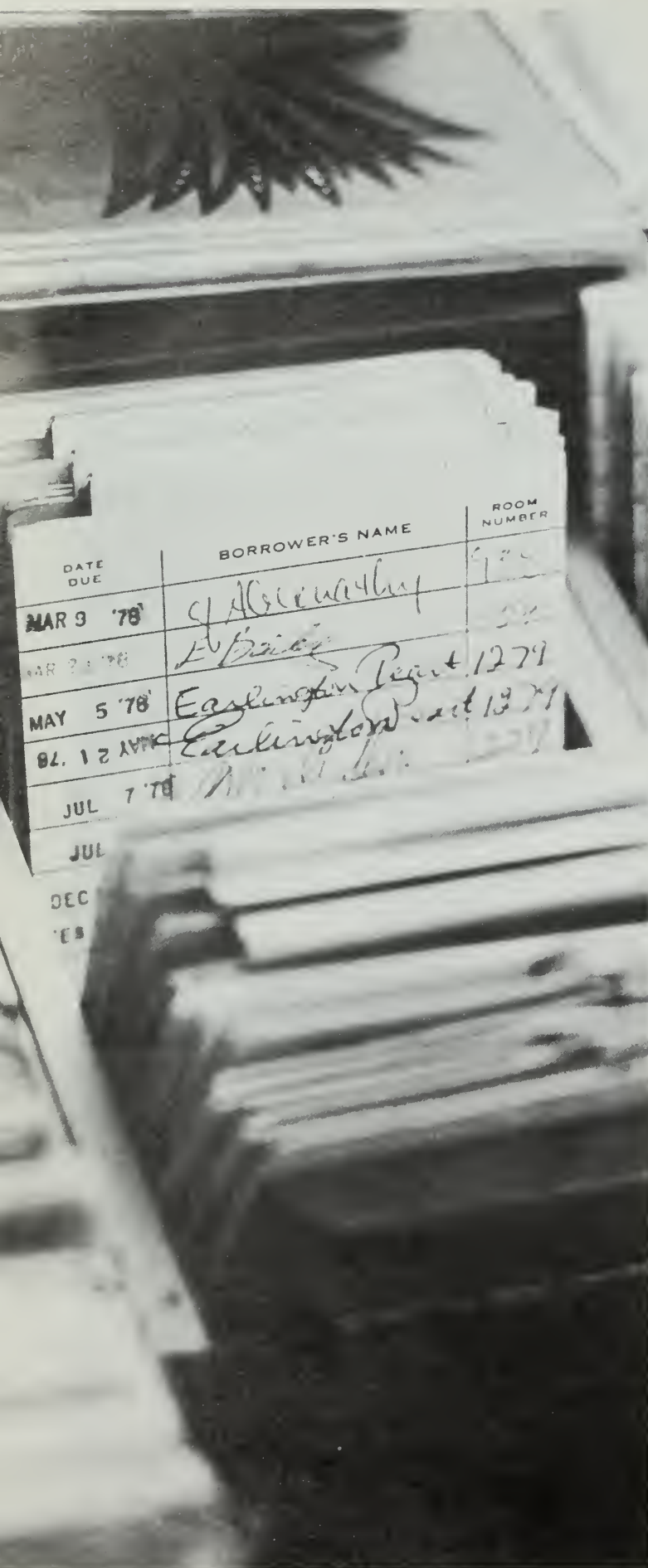
*Sharon C. Moroni, base librarian, greets every patron with a willingness to serve. Her policy: never say "no" when you can say "yes."*

but stereo equipment and headphones are available at no cost for listening on the premises.

Types of reading material people seek seem to be influenced by the recreational and cultural facilities offered on base. Since Gitmo boasts many clubs for special interest groups and a variety of craft classes for all ages, "how-to" books are popular, especially those on shell-collecting and short courses in auto repair.

Of course, best sellers always are in demand. "Roots," for instance, has a waiting list long enough for some readers to trace their own ancestry while they are waiting.

Scuttlebutt has it that Gitmo sailors lean toward western and detective serials, racy novels and tales of the sea,



but no supporting evidence can be found at Gitmo's library. Many sailors borrow from the paperback swap shelf—for which no records are kept—and even a cursory glance discloses a multitude of titles. Records maintained on “checkouts” indicate reading tastes among Gitmo library users are quite similar to those of the population in general—they read everything.

“Women dependents are among our biggest users,” the librarian said, “and they like fiction and craft books for the most part. We also have about 200 books in Spanish for our Spanish-speaking users, and a limited selection of children's books. Most of the school-aged children do their research assignments and leisure reading at one of the two DoD school libraries on base.”

The library's budget has been chopped by about 75 per cent during recent years, resulting in a smaller selection of new volumes. “We still receive between 25 and 30 books monthly from Chief of Naval Education and Training,” Ms. Moroni said. “Most of our popular volumes, however, come from a rental service to which we subscribe. It's used by many libraries and costs about \$900 annually for an inventory of 150 books.”

Renting books has advantages. Through it, the Gitmo library is able to stock about 80 per cent of the titles listed on the best seller lists and keep them for as long as desired. After renting a book for six months, the library has the option of purchasing it for about 25 per cent of its original cost. “We get most of our best sellers that way,” Ms. Moroni said.

Every family (and single individuals) on base is eligible to receive a library card. Serving so many people with various reading tastes, it's inevitable that someone now and then will want a specific book or class of book which the library doesn't stock. Due to financial constraints, the librarian can't special-order such a book unless there is a reasonable demand. Individuals desiring a limited-interest or professional book are usually asked to order it at their own expense. “Sometimes, in these cases, we can get an inter library book loan for the individual by sending a request to one of the stateside Navy libraries,” Ms. Moroni said.

Gitmo can't compete with a metropolitan library when it comes to variety of services offered, but it compensates with a willingness to serve. The unwritten policy is never say “no” to a request when it's possible to say “yes,” even when the request comes from a set of expectant eyes peeking over the countertop. “My daddy works here, but I forgot his number. Can I take this book home anyway?”

“Of course you can. What's your daddy's name?”



# Reading on the Connie



*In Constellation's pilot reading program, students increased reading levels by an average of more than two years. Photo by PH3 J. A. Austin.*

Navy libraries—no matter how well stocked—are wasted on the sailor who can't read as well as he should. Thanks to a recently completed pilot program onboard USS *Constellation* (CV 64), that ship's library is probably getting a busier workout than it has in years.

Program developers from St. Louis High School of Honolulu, Hawaii, established the remedial reading course—the first aboard a Pacific fleet ship.

The course was designed to help both high school graduates and those working toward a diploma. Besides building reading comprehension, the class also provides skills in pronunciation, vocabulary and spelling.

A St. Louis High School reading specialist said the 60-hour course was designed to provide the student with a one-year increase in his reading skills. However, that isn't what happened: "The results from our initial class were very good," said Master Chief Personnelman Marv Wald

of Connie's educational services office. "We had an average increase of over two reading grades per student; one sailor increased his reading level by four years in just 60 hours of instruction."

In the pilot project, men who participated did so partly during working hours. Now the course is taught early in the morning, at a time when educational specialists say learning capacities are at their peak.

Connie's commanding officer was also impressed with the results: "Most of those participating have never had a successful learning experience, and we are convinced that by allowing them to participate in this class they will perform better at their regular assigned duties," said Captain M. A. Peelle.

Onboard *Constellation*, if anyone wants to know "Why Johnny can't read," they'll probably say there aren't many "Johnnies" on *Connie*.

# The Desert Navy at White Sands

STORY BY JO2 DAVIDA  
MATTHEWS  
PHOTOS BY PH2 ROBERT W.  
SWANSON

Where Billy the Kid, Pat Garret and Geronimo once roamed, sophisticated radar and tracking equipment now dots the desert. The desolation which once frightened off many a settler in this corner of New Mexico was one of the chief reasons why the White Sands Missile Range was located here.

Robert Goddard first came to the desert in the 1930s with his liquid fuel rockets. Here, in the wide open spaces, he could safely conduct his testing without fear of endangering lives or starting fires where the rockets impacted.

The missile range was opened on July 9, 1945, near where Goddard conducted those first tests.

The Navy came to the range a year after that, to conduct experiments with the Army on captured German V-2 missiles.

"A desert Navy may have seemed a bit incongruous at first," explained Captain Mell Peterson, commanding officer of the Navy detachment and deputy commander of the range for Navy matters, "but it was recognized early that the Navy needed a land-locked arm in its missile development program."

On the desert, recovery for study of spent missiles was considerably easier than if tested at sea. The Naval Ordnance Missile Test Facility (NO-MTF) soon became a permanent part of the White Sands Missile Range.

They even brought a ship along. "Well, not a real ship," said Capt Peterson, "but for test purposes it is."

USS *Desert Ship*, LLS-1 (denoting land-locked ship number one), is a low, blockhouse building, constructed in the 1950s in the same rough dimensions as a guided missile ship.

"This prototype was designed to test the feasibility of certain missile

systems aboard ship," explained Lieutenant Commander J. R. O'Sullivan, the Surface Missile Systems officer. "We use the same computer systems in our testing that would be used in a real situation, working under the same space limitations that would exist had the testing been done aboard ship."


The desert ship comes complete with launch pads, hatches and ladders; from the inside she looks like any seagoing vessel. "It is a bit disconcerting at first to glance out a porthole and see nothing but sand, cacti and mountains," Capt Peterson said, "but you get used to it after a while."

The ship has been modified extensively in support of the *Aegis* weapons system testing program (see *All Hands*, November 1976). This program uses an advanced version of the *Standard* missile, commonly called the SM-2. "But we are still able to test the older *Terrier* and *Tartar* missiles, and *Talos* if required," said LCDR O'Sullivan.

The search for better, more accurate weapons is an important part of





A photograph of the U.S.S. Desert Star (L.L.S.-1) at a launch site. The ship's dark hull is in the foreground, with a white pennant displaying "L.L.S.-1" and "U.S.S. DESERT". In the background, two tall, lattice-structured launch towers stand against a clear sky. A smaller structure with a light fixture is visible between the towers. The ship's superstructure, including a large dark building, is partially visible behind the towers.

the Navy's reason for being here, but that's not the only reason. The Navy also maintains research rocket launching towers that enable scientists to perform accelerated research of the upper atmosphere and near space through the use of instrumentation packages in high-altitude rockets.

Chief Gunner's Mate Phillip Jones is the division officer in charge of research rockets. "My crew assembles rockets, fuels them and launches them for various agencies and, also, various purposes. Some of our recent customers have been NASA, the Naval Research Laboratory and the Air Force Geophysics Laboratory. Our latest project has been the *Black Brant* rocket for Bristol Aerospace in Canada and NASA. We will eventually support and launch a total of 15 of their rockets, with the testing ending about 1980."

The desert Navy is also currently involved in the *Aries I*, which recently set a new altitude record of 318.77 miles for single-stage rockets. This rocket complements another sounding rocket used extensively by the Navy—the *Aerobee* series. "The *Aerobee* is the oldest continuous rocket firing program at White Sands," explained executive officer Commander J. R. Roepke. "We started using the *Aerobee* back in 1947 and have fired about 500 different varieties for various research projects."

Payloads on the many rockets the Navy has fired are varied, but all serve the same general purpose—to increase man's knowledge of outer space and, eventually, aid him in space exploration.

Each rocket may carry any number of experiments, each acting independently of the others. Cameras, vacuum bottles, mirrors, grids, sensing devices, lenses and many other mechanical units have been carried aloft and returned for study. "Each launch brings us a step closer to understanding fully the properties of zero gravity and how



we can use it for our own benefit," said Capt Peterson.

On this sprawling national range, hosted by the Army, the Navy has a relatively small contingent—only 85 military and 54 civilian members.

"We are a close-knit bunch," stated Chief Jones. "Since we are so isolated, the base is more like a little community than a military installation."

The majority of the Navy people are in seagoing rates such as fire control technician or gunner's mate, so White Sands provides them with a much-welcomed shore duty tour with their families.

"Life on the desert isn't exactly what I had in mind when I joined the Navy, but it's so different, I enjoy it," stated one Navyman.

*(Continued on page 37)*



# Three...Two... ...One...Zero

The crisp morning air is strangely still. A truck coasts to a stop, its ignition switched off against the chance of igniting the rocket too soon. The braying loudspeaker begins the final countdown.

Three . . . two . . . one . . . zero.

For a split second, there is total silence. Then, with a roar that creates an almost uncontrollable urge to clap hands over ears, the thin cylinder rises above a fiery cloud.

A few seconds later, only a smoky spiral marks its path and the rocket turns into the wind. Another successful launch of a *Black Brant* rocket.

One hundred and ten miles above the desert, the rocket's payload is activated. Automated experiments click into action, performing as programmed in the weightlessness of high altitudes.

In just a few short minutes, the rocket begins its descent, ending nine months of preparation, and beginning many more months of data analysis and study. The rocket is minutely tracked—when it lands, the payload will be recovered by helicopter and returned to scientists for analysis.

Mission is accomplished. The desert returns to its dreaming until the next launch.

This particular launch, third in a series of 15, contained five experiments dealing with the effect of zero-gravity on the processing of certain materials.

The rocket reaches speeds of seven times the speed of sound. At that point, thrust cancels the effect of gravity, producing a state of zero-gravity for a few minutes. It is then that the experiments are conducted.

For example, one experiment deals with processing beryllium. This element is lightweight, and strong at high temperatures, but at room temperatures, extremely brittle.

By processing the metal in space, removed from the effects of gravity, scientists hope to create a finer grained material on a microscopic scale. The result should be a less brittle metal that still keeps its properties at high temperatures.

Scientists can already see applications for the better beryllium, making it ideal for use in nuclear reactors.

Most of the experiments conducted with *Black Brant* rockets are the seeds of future space processing applications of Space Shuttle. By studying the reaction of zero-gravity on minute particles, scientists can apply the same logic and the same theories to larger payloads the shuttle will be able to carry into space.





# Largest Military Installation

*(From page 35)*

The base provides a school, church, theater—everything a city could offer without the hassles of city life. “The pace is slower, too, he said, “and you just don’t have crime here.”

But the desert presents its own hazards. Prowlers in the night may not be human, but they are still there. The range has more than its share of dangerous creatures, including rattlesnakes and scorpions.

“We are constantly reminding our men and their families that the desert and its inhabitants are still wild and should be treated with caution and respect,” said the captain.

“In the summer, it gets hot here, but the humidity is so low that it doesn’t really bother you,” he continued. “It’s easy to forget how dangerous that sun is.” Heat stroke, cramps and exhaustion are possible and very common if proper precautions are not taken.

But the danger is almost outweighed by the benefits the area provides. The southwest is rich in legend and history and abounds with places to go and things to see. From marveling at the beauty of Carlsbad Caverns to haggling good-naturedly with a street vendor in Juarez, Mexico, over the price of handcrafted goods, Navymen here are given a unique opportunity to enjoy a bit of Americana not seen by many of their peers.

In this land of contrasts, where forested mountains meet desert plains, it is perhaps appropriate that the Navy has found a niche. ↴

Surrounded by mountains and highlands, the White Sands Missile Range is located in the Tularosa Basin of south-central New Mexico. It takes its name from the White Sands National Monument located on the installation.

The Missile Range is over 100 miles long and 40 miles wide. It encompasses more land than the states of Delaware and Rhode Island and the District of Columbia combined, making it the largest land-area military reservation in the United States.

In addition to its 4,000 square miles, the range has had use of a 40-by-40-mile area adjoining the north range boundary since 1960. This extension is used about 20 times a year and allows for the testing of some of today’s longer-range missiles.

The New Mexico desert was selected for the nation’s first rocket center for several reasons and geographical advantages:

- The land was cheap and much of it government owned;
- The area has almost year-round clear weather and unlimited visibility;
- The desert is sparsely populated and affords relatively easy recovery of spent missiles.

The range has more than 1,000 precisely surveyed instrumentation sites and some 700 of the newest most modern types of optical and electronic instrument systems, including long-range cameras, tracking telescopes and radars scattered across the desert. Each launch and every move are carefully documented through these instruments for further study.

In the mid-50s, studies were initiated to extend White Sands Missile Range facilities to accommodate longer-range vehicles. Several flight corridors were considered but the final selection was an azimuth in a northwesterly direction, passing west of Salt Lake City, Utah, toward Yakima, Wash., and terminating in Alaska.

Initially established as White Sands Proving Grounds, the name was changed to White Sands Missile Range in 1958. The range is under operational control of the U. S. Army Test and Evaluation Command, Aberdeen Proving Ground, in Md., and supports missile development and test programs for the Army, Navy, Air Force, NASA and other government agencies.

Just a week after White Sands was opened, the world’s first atomic device was detonated on the northern portion of the range. The now-historical spot, generally known as Trinity Site, is located within a missile impact area and is not open to the public except during a special open house held the first Saturday each October.

# USS TRUETT O.R.E.

## THIS IS A DRILL,

BY ENS KERRY J. NORTHRUP

The first "attack" came from West German fighter bombers making diving runs on USS *Truett* (FF 1095). That attack was quickly followed by fast patrol boats supported by supersonic F-104 fighters. *Truett* received one blow after another. Strikes were launched by the surface attack groups while submarines also searched for *Truett*.

USS *Truett* had not fallen prey to an ally gone berserk. When she faced her annual Operational Readiness Evaluation (ORE) requirement, *Truett* was deployed as the United States unit in NATO's Standing Naval Force Atlantic (STANAVFORLANT). Multi-nation units were eager to help test *Truett's* men and systems under simulated threat conditions.

The ORE is normally administered and graded by a unit's immediate senior command. It usually lasts about one day at sea, and staff personnel are embarked to provide simulated contacts to radar, sonar and electronic warfare operators. Usually, the only "real" opponents are a few aircraft used in some antiaircraft and antiship defense exercises.

Problems arose when *Truett* came due for her annual ORE. STANAVFORLANT is designed to be a ready-alert force, not a training squadron. Yet, with special permission from U. S. authorities and through the enthusiastic cooperation of the head of STANAVFORLANT, Royal Navy Commodore J. M. H. Cox, *Truett* conducted her ORE in a manner both unique for U. S. forces and enhancing to international understanding.



## GENERAL QUARTERS,



# THIS IS A DRILL

*Truett's* ORE was scheduled to coincide with the West German Navy's Quarterly Federal Tactical War Exercise in which STANAVFORLANT forces opposed West German ships, submarines and aircraft. The result for *Truett* was two and one-half days of real confrontations with F-5 and F-104 fighter bomber aircraft, missile-equipped fast patrol boats, four attack submarines, and a surface force consisting of two DDs and one DDG.

There was obviously no need for simulated contacts in this ORE.

Embarked in *Truett* to grade the exercises was an international group of officers and senior enlisted personnel from the other ships in the NATO squadron. They came from



the Netherlands ship *Tjerk Hiddes*, the West German ship *Karlsruhe*, the Canadian ship *Ottawa*, the Norwegian ship *Narvik* and the British ship *Norfolk*.

The first step was to teach the foreign evaluating personnel what to evaluate. In effect, the NATO officers and petty officers underwent training by *Truett* in how to give the ship its ORE. U. S. Navy publications outlining the conduct of exercises were made available and several training conferences were scheduled to aid the foreign officers in learning the differences between their own and USN standards.

At the same time, *Truett* people learned how the West German and NATO forces conduct their exercises.

In the scenario for the West German exercise, the NATO units represented forces trying to reinforce a North Atlantic battle fleet. The

*Left: LCDR Pratt, RN, evaluates sonar contact tracking procedures. Above: Repair party conducts decontamination procedures on Truett's foc's'cle.*

West German ships and aircraft were the forces assigned to stop them.

During the two days of the battle problem segment of *Truett's* evaluation, she was tested continuously first by one threat and then another.

*Truett* was subjected to multiple damage control exercises caused by simulated conventional and nuclear blasts around the ship. The supply of smoke generator devices brought onboard by the NATO observers seemed endless.

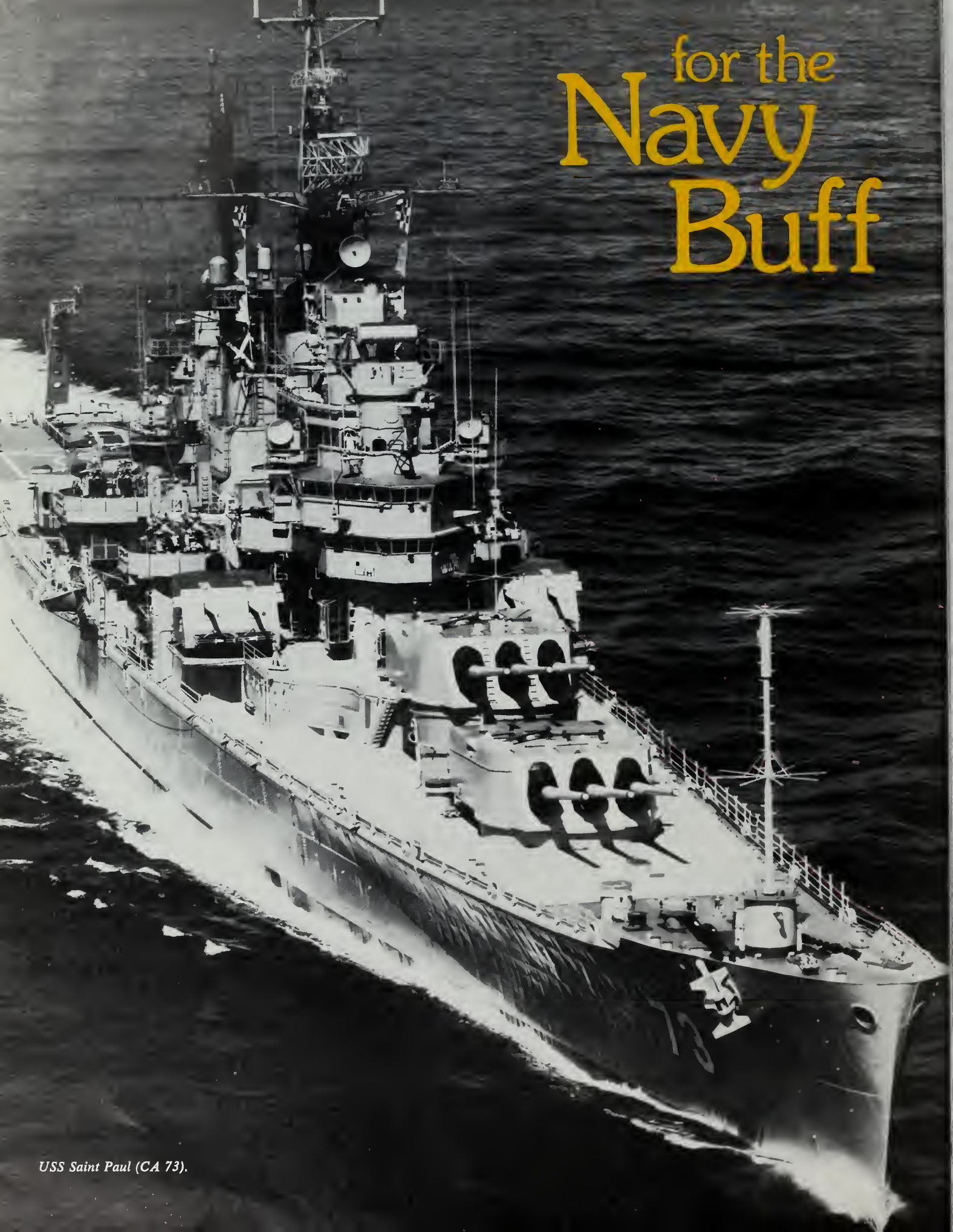
When the smoke had cleared, literally, *Truett* found herself with a satisfactory ORE. Perhaps more important, though, was the level of cooperation and exchange that evolved through an unusual and extensive international naval training exercise. ⚓



# GENERAL QUARTERS



for the  
**Navy  
Buff**



*USS Saint Paul (CA 73).*



Here is our third installment of a feature we call "For the Navy Buff." Letters, questions and comments generated by our second segment in the June 1976 issue proved again that Navy people enjoy reading and discussing those long-forgotten odds and ends concerning Navy life and lore. Here then are some more questions you'd never think to ask unless you thought the answers would enliven a mid-watch.

**Q.** *Where did the term "slush fund" originate?*

**A.** In the Old Navy, "slush" was the name given fat and grease from the galley which was used to lubricate masts and spars to waterproof and protect them. It was customary to sell excess slush to commercial shipping firms and use the proceeds for the benefit of the enlisted men.

With the advent of better lubricants (and, perhaps, more wholesome food at sea), slush funds were supported from monies raised through the sale of discarded clothes, items from the lucky bag, and personal effects left on board by deserters. Today, though, slush funds have been replaced by Welfare and Recreation Funds supported by profits from ships' stores, Navy Exchanges and other legitimate enterprises.

**Q.** *Some say USS Saint Paul (CA 73) fired the last shot of World War II and others give the credit to USS Concord (CL 10). Is either correct?*

**A.** No one really knows for sure which ship fired the last round in the war, but *Saint Paul* is officially given the credit for firing the last major salvo Aug. 9, 1945. *Concord*, however, did conduct a shore bombardment of the Suribachi Wan area August 13.

Further complicating the matter, Task Force 38 was attacked by Japanese aircraft August 15 just after receiving orders to cease hostilities. They passed the word on to the Japanese with marked clarity. Which of these constitutes the last shot of the war depends on how you want to define "last shot." The Navy defines it as meaning the last major-caliber salvo fired and thus recognizes *USS Saint Paul*.

**Q.** *Has an American sub ever been credited with sinking a battleship?*

**A.** *USS Sealion* (LPSS 315) became the only American sub ever to sink an enemy battleship when she sank the Japanese *Kongo* off Taiwan Nov. 21, 1944. Only two other battleships—both British—were sunk by submarine torpedoes in World War II, His Majesty's Ships *Royal Oak* and *Barham*.

**Q.** *When, if ever, may staff corps officers on board a command at sea be employed as officers of the deck?*

**A.** Ready for the obvious? Whenever the skipper says they can, provided he feels they're qualified. There's no policy prohibiting the use of staff corps officers as OODs. Likewise, many Supply Corps officers are used as OODs in

port and occasionally at sea. Additionally, we've heard that a few (a very few) medical corps officers have qualified for and stood underway watches on the bridge.

**Q.** *I've heard a lot about the punishments in the "Old Navy" but other than keelhauling have heard very little about other specifics. Can you provide some examples?*

**A.** About the worst punishment in the U. S. Navy was flogging with a cat-o'-nine-tails and many offenses were so punishable. The 16th century British and Dutch navies, on the other hand, probably hold the record for the cruelest reprimands at sea. A few offenses and their punishments as described in the Code of Oleron taken from *The Black Book of the Admiralty* follow:

- For blasphemy—offender gagged and tongue scraped or tongue branded with red hot iron.
- For murder on board ship—offender bound to victim and cast into the sea.
- For murder ashore—offender bound to victim and buried in the earth.
- For sleeping on watch (fourth offense)—offender placed in basket secured to bowsprit end of ship and given a sharp knife, bottle of beer, loaf of bread, and option of starving or cutting the basket free (to fall into the ocean while underway.)
- For theft—offender's head was shaved and boiling pitch poured upon it, promptly followed by a liberal dousing with feathers.
- Assault with a deadly weapon—offender's hand cut off.

**Q.** *Is it true that a Navy captain hanged the son of a Secretary of War for an attempted mutiny?*

**A.** Commander Alexander Slidell Mackenzie, captain of brig *USS Somers* did just that in November 1842 while *Somers* was en route from Liberia to New York. For attempting to incite a mutiny (to subsequently take the ship and go on a pirating expedition) Midshipman Philip Spencer and two fellow conspirators were hanged at the yard-arm. Spencer was the son of Secretary of War John C. Spencer under John Tyler.

Mackenzie was later tried by court-martial on the charge of murder, but was honorably acquitted and the verdict was approved by President Tyler. There has never been a successful mutiny aboard a U. S. Navy ship and this attempt is believed to be the only one ever.

**Q.** *When did the practice of frocking Navy people in lieu of immediate promotion with pay begin and who was the first ever frocked?*

**A.** We know that it's done, but we can't find out when it started or who was the first so honored. Any of you Navy history buffs out there have the answer? (→)

**Q.** *Why are sailors—especially the oldtimers—sometimes called “tars?”*

**A.** Well, it's not because of the practice of using tar to seal the seams of the wooden ships. The slang word is actually a derivative of “tarpaulin,” a canvas impregnated with tar or oil to waterproof it. In the days of sail, fabric for clothing was scarce on board ships so sailors made some of their clothes from discarded sail made from tarpaulin. The hats worn by salts were called “tarpaulins” since they were made from that material, and eventually the sailors themselves referred to each other as “tars”—short for tarpaulins.

**Q.** *Recently I saw a Navy Birthday poster entitled “Eternal Vigilance.” I assume that the title refers to the quote “Eternal vigilance is the price of liberty,” but have been unable to find who first said the phrase. Can you help?*

**A.** Maybe. The poster you're referring to was an American Revolution Bicentennial poster from the U. S. Navy Bicentennial Coordination Office painted by LTJG Bill Ray. “Eternal vigilance . . .” is one of the most widely quoted sayings concerning liberty and has been variously attributed to Thomas Jefferson, Patrick Henry, Voltaire and others. It doesn't appear in the writing or letters of any of these men and there is no proof that one of them originated the phrase.

On July 10, 1790, the Irish statesman and orator John Philpot Curran said in a speech, “The condition upon which God hath given liberty to man is eternal vigilance.” Because of this, some historians attribute the statement in question to Curran and claim the popular version is a corruption of the original.

Other historians, however, give the credit to an American orator named Wendell Phillips who said “eternal vigilance . . .” in a speech given to the Massachusetts Anti-Slavery Society on Jan. 28, 1852. Phillips said it exactly as it now appears and when a dispute arose in the late 1800s about its origin, the American orator claimed authorship.

**Q.** *I have an Army friend who insists that if a service member is unable to salute with his right hand due to an injury, for instance, he should not salute at all but instead bid his senior a courteous good day. I think the member should salute with his left hand. Who is correct?*

**A.** Both of you. The Army and Air Force never salute with their left hand; the Navy and Marine Corps do so only when necessary. “When necessary” is defined as being in a situation wherein your right arm is injured or is so encumbered as to delay your salute too long. If both arms are injured or encumbered, stand erect and voice a cheerful greeting as appropriate.







*USS Skate (SSN 578).*

**Q.** Which naval vessel holds the speed record for circumnavigating the globe?

**A.** USS *Skate*. She circumnavigated the world in less than 50 minutes in 1958. Her secret? *Skate* was about two miles from the North Pole and traveled around the top of the globe while maintaining the two-mile radius—all told, a distance of some 12 miles!

**Q.** Of all the animals in the world, why did the U. S. Naval Academy choose a goat as a mascot? Also, what do the stars on its blanket mean?

**A.** Pure chance and some mischievous midshipmen selected the lowly goat. As tradition has it, the Naval Cadets (as they were then called) were proceeding to the 1890 Army-Navy game at West Point when they happened upon a goat grazing in the yard of an NCO's home. Full of mirth, the cadets "liberated" the animal for a noble cause (some claim they bought it for \$1) and treated it to a front row seat at the game. When they won, they decided to keep the goat as a mascot.

Although traditionally named "Bill," the first official goat was named El Cid and made his debut at the fourth Army-Navy game in 1893. The Navy won 6-4. Today, the official mascot wears an "N" blanket adorned with one star for each victory over Army it has witnessed. Also, its horns are painted blue and gold—need we explain why?

**Q.** Is it true that the Navy lost more officers to duels than in naval actions during its first 50 years?

**A.** Some historians say so. In any case, there are numerous documented accounts of duels involving Navy officers between 1775 and 1825. Commodores Oliver Hazard Perry and Stephen Decatur, in fact, both fought duels in the early 1800s and Decatur was mortally wounded while fighting a duel in 1820.

Dueling to settle affairs of honor among gentlemen was not solely the prerogative of senior officers; it was commonly practiced among junior officers and midshipmen as well. The "popularity" of this method of settling an argument or seeking redress for offenses was due more to a period book entitled *The Code of Honor* than to actual outrage over an offense in most cases.

In *The Code of Honor*, 39 articles outlined offenses which could be settled only by dueling and offered specific guidelines for proper dueling. The following quote sheds some light on why so many men went to early graves over trivial disagreements:

"No apology can be received for a blow. For being intentionally spit on; having wine, snuff, etc., thrown in the face, no apology is admissible, but redress must be sought by the duel, if the party aggressing ranks as a gentleman."

So commonplace was dueling among the upper classes and so acceptable was it as the only gentlemanly method of settling "affairs of honor," that President Andrew Jackson—himself an old soldier—suggested that it be outlawed for civilians and reserved as the special prerogative of Navy and Army officers.

**Q.** David Farragut was appointed to the rank of midshipman when he was nine and a half years old. Doesn't that make him the youngest U. S. Navy midshipman ever?

**A.** He was indeed young, but not the youngest. Samuel Barron was appointed and given a midshipman's warrant at age three years, four months (April 11, 1812). He served "on duty" at half-pay until, at the age of eight, he reported for active duty at the Norfolk Navy Yard. In 1820, he was ordered to USS *Columbus* for sea duty.

The Royal Navy can easily top Barron's record, though. There are records indicating that babies were entered on the midshipmen roles when they were one year old. Their captain collected all their pays and allowances until they were actually ordered into active duty. (→)



**Q.** When did the Navy begin awarding good conduct medals?

**A.** As we know them today, August 1888. The award actually had its beginnings some 23 years earlier and was known as "The Honorable Discharge Badge." Those so discharged were entitled to wear a fouled anchor on the left sleeve of their jackets. The badge certified that the man had served his enlistment with "fidelity, zeal and obedience." For each additional honorable discharge, a star was added to the badge.

That award was canceled in 1870 and an award called the "Good Conduct Medal" took its place. The medal consisted of a nickel maltese cross bearing the same insignia as its predecessor in the center and the recipient's name engraved on the back. The medal hung from a red, white and blue ribbon. That award was canceled in 1888 and replaced by the one used today.

**Q.** How did the legend of the *Flying Dutchman*—that mystical ship guarding the Cape of Good Hope—get its start?

**A.** According to sea lore, if a sailor sights the *Flying Dutchman* it is an omen that sudden squalls, shipwrecks, illness and disaster will follow shortly. There are many legends describing the origin of the *Flying Dutchman*, but the most common is this:

It was believed to be a Dutch ship commanded by Captain Vanderdecken. He was taking her around the Cape of

Good Hope when he sailed into one of the terrific storms common to that region. His crew pleaded with him to turn back and wait out the gale but Vanderdecken was determined to go on. Suddenly, a ghost appeared on the masthead and warned him to turn back, but the captain vowed that he would continue around the Cape against the wind if it took until Judgment Day. Evidently providence took him at his word, for to this day it is said that the phantom ship can be seen sailing against the wind with all sails set and Vanderdecken and crew now reduced to little more than shadows.

In another legend the *Flying Dutchman* was believed to be a ship carrying a precious cargo from the Indies when a plague broke out among the crew. Because of the disease, no port would allow the ship to enter and it was condemned to stay at sea forever.

Science offers a more plausible explanation for ship sightings in that area. Because of unequal refraction of light in the lower strata of atmosphere in the region, ships actually out of the range of vision can sometimes be seen by observers. These "ghost" ships seem to be hanging in midair near the horizon, and even today, there are sailors who have seen the *Flying Dutchman*.

**Q.** Which was the first American ship ever to sink a German U-boat?

**A.** The merchant ship *SS Mongolia* holds that distinction. On April 19, 1917, *Mongolia* was attacked by a German submarine. Lucky for her, the month before she had taken on an armed guard and was able to return the submarine's fire. Her guns caused so much damage to the U-boat that it was forced to submerge and subsequently sink. This incident marked not only the first American vessel to sink a U-boat, but also it was the first time that an American ship had ever fought a German submarine.

On Nov. 17, 1917, the U. S. Navy destroyers *Nicholson* and *Fanning* made naval history when they became the first U. S. Navy ships to sink a U-boat—U-58, about 10 miles east of Queenstown, Ireland.

**Q.** Just exactly what was "Admiral Porter's Dancing School"?

**A.** When Vice Admiral David D. Porter became Superintendent of the U. S. Naval Academy in 1865, he made many changes both in curriculum and ceremonies. Porter's Dancing School alludes to a change the admiral made in the graduation ceremonies. Not content with the simple ceremony of past years, Admiral Porter made graduation week a season of festivity with dances, parades, athletic events and the presentation of the Colors to the Color Company. Some people resented the alteration of tradition and showed their displeasure by labeling the academy "a dancing school."





**Q.** Did John Paul Jones really say “I have not yet begun to fight” as an answer to Serapis’ Captain Pearson’s query concerning his willingness to continue the battle?

**A.** The battle, of course, was the *Bonhomme Richard-Serapis* encounter on Sept. 23, 1779. Though “I have not . . .” is attributed to Jones, it was not credited to him until many years after the battle. In fact, there is no evidence that Jones himself ever claimed to have uttered the now-famous saying.

At one time during the battle, *Serapis*’ captain asked Jones, “Do you ask for quarter?” Both vessels had been severely damaged and both crews had sustained numerous casualties by this time. In a letter written Oct. 3, 1779, to Benjamin Franklin concerning the battle, Jones wrote, “The English Commodore asked me if I demanded quarter, and I having answered him in the most determined negative, they renewed the battle with double fury.”

Dr. Benjamin Rush, a signer of the Declaration of Independence, credited Jones with having said, “No, sir, I will not—we have had but a small fight as yet.”

In *American Naval Heroes* (published in 1823), Samuel Putnam Waldo wrote that Jones replied, “Sink me if you can—if I must go to the devil I’d rather strike to him than you.”

It wasn’t until First Lieutenant Richard Dale wrote an article entitled “Particulars of the Engagement Between the

*Bon Homme* [sic] and the *Serapis*” in 1825—some 46 years after the battle—that the now famous quote appeared in print and was attributed to Jones.

Did he actually say “I have not . . .”? No one knows for certain. Jones did make one well-documented statement later upon hearing that Pearson had been knighted for his courage in the engagement. Said Jones, “If I fall in with him again, I’ll make him a lord!”

**Q.** “A dollar a day is a sailor’s pay” is a refrain from an old song or sea chanty, but I can’t seem to find the rest of the words. Could you help?

**A.** The refrain you mention could have come from a number of old sea ballads, but one in particular seems most likely. Called “A Sailor’s Pay,” it’s an old sea chanty that goes like this:

A dollar a day is a sailor’s pay,  
To pump all night and work all day.  
The times are hard and the ship is old,  
And there’s six feet of water in her hold.  
The bosun shouts, the pump stand by,  
But we can never suck her dry.  
Oh, heave around the pump-bowls bright;  
There’ll be no sleep for us tonight.  
Heave around or we shall drown,  
Don’t you feel her settling down?  
The rats have gone, and we the crew,  
It’s time, by God, that we went too.

**Q.** What does the “O” in A.W.O.L. stand for?

**A.** We thought this would be a snap since the “O” obviously stood for either “out” as in “without” or “official” as in “absent without official leave.” Our job, as we saw it, was to ascertain which was correct. According to George Stimpson in his book, *A Book About A Thousand Things*, neither, however, is correct.

“The United States War Department,” he wrote, “explains that A.W.O.L. was adopted instead of A.W.L. to eliminate the possible confusion with ‘absent with leave.’”

So, the “O” actually stands for nothing, which just about sums up what A.W.O.L. is all about anyway. ⚓

# Mail Buoy

## Orion Nebula

SIR: In the article, "The Nation's Timekeepers" (December 1976), I noticed two errors. First, the picture labeled the Lagoon Nebula is actually the Orion Nebula located around the middle star of the Constellation Orion's sword. Second, the picture of the Sombrero Galaxy cannot be 25 light years in diameter. It would have to be more (60,000 light years) because it would otherwise not be visible except for maybe a point of light and then only by the most powerful telescope.—AQ2 S. Timpson

• *The Deputy Superintendent of the Naval Observatory tells us you are right and the captioning information originally provided us from another source is in error. The distance to Sombrero Nebula Galaxy is 37 million light years while its diameter is 85,000 light years. A 40-inch Ritchie-Cretien telescope was used to photograph Orion Nebula.*—Ed.

## Retirement

SIR: I have 13 years continuous active duty. The last time I was discharged and reenlisted, I was a petty officer, 1st class. Since that time I have been reduced in rate to E-3. Upon retirement, will I retire at the highest rank held or will I retire at my present rate at the time of retirement? Also, in order to reenlist at the end of this enlistment, what pay grade will I have to obtain?—HN J.A.

• *We have been informed that provided you are recommended for reenlistment and are otherwise eligible, you may complete 20 years day for day service. Additionally, your retainer pay then will be based upon the pay grade held at the time of transfer to the Fleet Reserve.*—Ed.

## Reunions

• USS *O'Bannon* (DD 450)—Reunion September 25-October 2 at Virginia Beach, Va. Contact Carl Settlemeyer, Rt. 1, Four Oaks, N.C. 27524; Phone (919) 689-2123.

• USS *Alcor* (AD 34) — Reunion September 23-25 in Portland, Me. Contact John S. Rogers, 51 Fourth Ave., Auburn, Me. 04210.

• USS *Birmingham* (CL 62) — Reunion September 23-25 in Long Beach, Calif. Contact Rudy Gonzalez, 510 S. Euclid, La Habra, Calif. 90631.

• USS *Savannah* (CL 42)—Planning eighth annual reunion for September 9-11, 1977 at Mobile, Ala. Contact O. J. Jindracek, 63 Thayer Dr., New Shrewsbury, N.J. 07724.

• USS *Missouri* (BB 63)—the 4th annual reunion will be held September 2-5 in Boston, Mass. Contact Thomas F. Fluck, 258 W. Clarkstown Rd., Spring Valley, N.Y. 10977.

• *P. T. Boats, Inc.*—Reunion September 2-5 in Columbus, Ohio for all hands who were in any way connected with P. T. Boats. Contact P. T. Boats, Inc., P.O. Box 109, Memphis, Tenn. 38101.

• USS *Wharton* (AP 7)—Sixth reunion planned for August at Newport, R.I. Contact George H. Howlett, USS *Wharton* Assoc., 110 Central Ave., Malden, Mass. 02148.

• *River Patrol Force* (TF 116)—10th annual reunion of Gamewardens of Vietnam Assoc., Inc. on August 13-15 in St. Louis. Contact John C. Williams,

P.O. Box 5523, Virginia Beach, Va. 23455.

• USS *Valley Forge* (CV CVA CVS 45/LPH 8)—Reunion July 28-30, 1977 in Long Beach, Calif. For information contact Bill Degischer, 18101 Tarzana St., Tarzana, Calif. 91356.

• USS *Ticonderoga* (CV CVA CVS 14)—Sixth annual reunion for crew and officers May 5-8, 1977 at Norfolk, Va. For information contact Edward G. Savage, 8008 Winstead Road, Norfolk, Va. 23518.

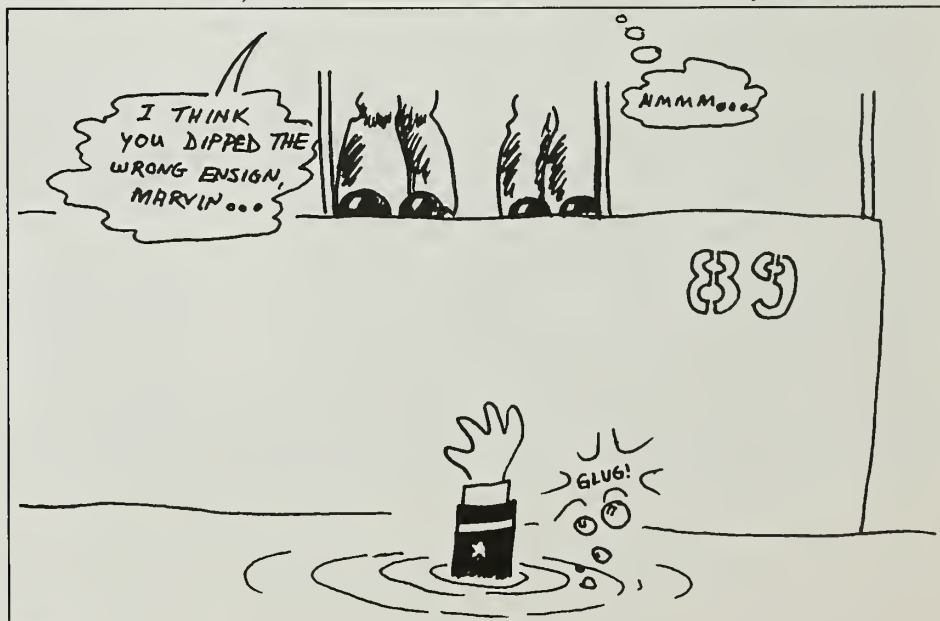
• USS *Halligan* (DD 584)—Reunion planned for 12-14 May. For information contact Jack Watts, 804 E. Cone Blvd., Apt. B, Greensboro, N.C. 27405.

• *Coral Sea Association*—Commemoration of 35th anniversary of the Battle of the Coral Sea May 6-8, 1977 in Washington, D. C. For information contact William F. Surgi, Jr. at (301) 942-3608 or write in care of P. O. Box 1172, Rockville, Md. 20850.

• SS *William Eaton*—Reunion proposed for Armed Guard Unit and merchant seamen who served aboard from Dec. 1944-May 1945. For information,

EW2 Robert E. Poulk, Jr.

All-Navy Cartoon Contest





contact Mrs. Donald Saunders, 1501 Beacon St., Brookline, Mass. 02146.

- *Third Construction Battalion Seabees/Third Mobile Construction Battalion*—Reunion July 27-30, 1977 in Toledo, Ohio. For information contact Theo Wilson, 1539 Apperson Dr., Salem, Va. 24153.

- *Seabee Veterans of America*—Thirty-first annual national convention and reunion July 27-30, 1977 in Toledo, Ohio. For information contact Joseph A. Brimmer, 6125 Foth Drive, Toledo, Ohio 43613.

- *USS Newport News (CA 148)*—Anyone interested in a reunion July 29-31 in the Norfolk, Va., area, contact PNCM W. M. Keough, 3300 Ridgfield Dr., Norfolk, Va. 23518.

- *USS Concord (CL 10)*—Reunion planned for July 13-16 at Deadwood, S.D. For information contact Martin Schneider, 113 W. 9th St., Miller, S.D. 57362.

- *USS Picking (DD 685)*—Reunion for World War II veterans at Valley Forge, Pa. July 13-17, 1977. For further information contact Edward Boye, 71 Mosley Avenue, Staten Island, N.Y. 10312.

- *USS Density (AM 218)*—Reunion July 12-14, 1977. For details contact Sam Orr, Jr., 2515 North Nevada, Colorado Springs, Colo. 80907.

- *USS Washington (BB 56)*—Reunion July 11-14, 1977 at Dearborn, Mich. For information contact John A. Brown, Executive Director, USS Washington Reunion Group, Inc. (BB 56), Box 27035, Columbus, Ohio 43227.

- *USS Fletcher (DD 445)*—Reunion planned for July 1977. For information contact Keith E. Snyder, RD #1, Box 167E, Keeseville, N. Y. 12944.

- *USS South Dakota (BB 57)*—Reunion July 2-4, 1977 at Sioux Falls, S.D. For further info contact Ray Kanoff, 1210 N. 12th Street, Norfolk, Neb. 68701.

## The Log Book

From time to time, every sailor begins a sea story with the words, "Why I remember back in the Old Navy, we . . ." But how many really do? In an effort to polish up the brass in some tarnished memories, ALL HANDS has scraped away the barnacles on issues of yesteryear and hereby reprints articles revelatory of life in the "Old Navy."

### 35 YEARS AGO

Delivery of the first experimental plastic-plywood training plane to be ordered by the Navy—a low-winged monoplane—was recently announced by the Navy Department. The new plane, 90 per cent wood and plastic glue, will now undergo flight and destruction tests at the Naval Air Station, Anacostia. If the final tests prove successful, and the plane is found airworthy, the sleek, yellow "Aeromold" model may be one of several types to be put in mass production to provide training for Naval air cadets.

Proponents of plastic-plywood declare that modern science has produced in the new material a substance stronger than steel. They point out that plastic glue, which impregnates the wood, prevents warping and buckling; that plastic construction does not necessitate riveting or over-lapping of plates, thus reducing or over-lapping of plates, thus reducing air drag; that plywood surface is highly resistant to oil, water and fire; that bullets striking plywood make clean holes instead of flowering; and that repairs can be made quickly and easily.

### 25 YEARS AGO

Certain women members of the Navy and Marine Corps may now request discharge for reason of marriage alone. Enlisted women of the Regular Navy or Naval Reserve on active duty may now be discharged solely on grounds of marriage subject to the following provisions:

- They must have served a minimum of one year in current enlistment.

- They must have served one year after assignment to duty for which a voluntary agreement to extend was executed.

### 15 YEARS AGO

A new Navy rigging record has been claimed by an oiler and destroyer serving with the Sixth Fleet. USS *Canisteo* (AO 99) and *Perry* (DD 844) rigged lines and hoses in two minutes and 20 seconds while refueling in the Med. Earlier the same day, *Canisteo* and *Ault* (DD 698) rigged lines in two minutes and 21 seconds, but *Perry* later came alongside and lowered the mark by one second.



# MCPON

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**MCPON Robert J. Walker**

During my official travels since the beginning of the year, I have had the opportunity to visit many ships and stations throughout the Western Pacific and United States.

At all locations, I have spoken with enlisted personnel and was asked many questions concerning matters of enlisted interest. The following is a sample of the questions most frequently asked with my responses:

**Q. How do enlisted advancement opportunities look in the future?**

**A.** The overall opportunities for advancement are expected to be excellent for the next several years. However, the manning levels of selected ratings will continue to require CREO control to promote the best possible advancement opportunity. (Note: CREO, or Career Reenlistment Objectives, is a program to reduce manning in overcrowded ratings and increase manning in undermanned ratings through established controls of enlistments.)

Advancements for E-7, E-8 and E-9 in Fiscal Year 1976, respectively, were: 4,500, 2,005 and 627. The advancement

figures projected for E-7, E-8 and E-9 in Fiscal Years 1977 and 1978, respectively, are: 8,000, 2,500 and 800; and 6,600, 2,200 and 800. The figures for E-4, E-5 and E-6 in Fiscal Year 1976, respectively, were: 44,464, 26,631 and 11,621. The projected figures are: 60,700, 32,800 and 15,300 in Fiscal Year 1977; and 55,600, 28,500 and 14,000 in Fiscal Year 1978.

**Q. Are we to continue to lose our benefits?**

**A.** The Joint Chiefs of Staff and the Secretary of Defense have taken a firm, positive stand on the benefits issue and have recommended a one-year moratorium on changes to the compensation and benefits system. I feel that the pressure to erode benefits for military members will be reduced. Of course, this doesn't mean that benefits will not continue to be carefully scrutinized for inequity, inefficiency, etc., and corrective plans formulated.

**Q. Will the bell-bottom-and-jumper style uniform be authorized for wear again?**

**A.** Many factors enter into the decision making process to return to the bell-bottom-and-jumper style uniform such as economic constraints, the length of time needed for the changeover, current uniform inventories, etc.

After careful assessment of all influencing factors, a final decision will be made.

**Q. Do women in the Navy adversely affect sea/shore rotation?**

**A.** No. In fact, women directly contribute to making rotation more equitable. Under the present OUTUS/CONUS rotation plan, which is described in detail in BuPers Note 1306 of 5 Feb. 1977, women are normally required to rotate to remote or preferred overseas shore duty following their prescribed shore tour.

This affords men with a much better opportunity to be assigned a shore duty billet within the United States.

**Q. Will women be assigned sea duty billets aboard combatant vessels?**

**A.** Currently, public law does not permit the assignment of women to combatant vessels. However, the Navy has developed a proposal which would amend the law to permit the Secretary of the Navy to prescribe a greater variety of shipboard duty to which women members may be assigned. At present the proposal is being reviewed by the other military services. When the review is complete, the proposal will go to the Department of Defense for consideration. (See *Currents*.)

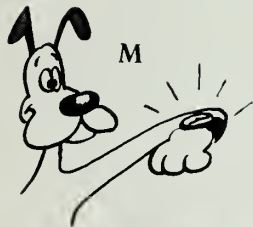
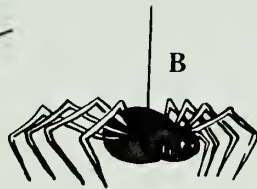
**Q. Is the selection board process better than the old advancement-by-examination system?**

**A.** The selection board process is far more valid and equitable. The old system advanced those who achieved the best test score, however, the best test-takers were not necessarily the best qualified individuals to advance. The selection board process recognizes this and advances members based on the "whole person" concept. This means that the individual's total record of service from "day one" is considered. The most qualified members are promoted for the numbers of openings available; keen competition prevails.

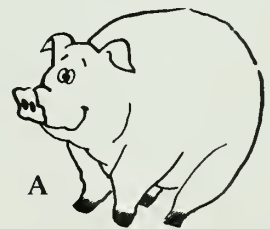
No doubt, as time progresses and changes are instituted, many more questions will surface. By exercising effective communication at all enlisted levels, rumors will be dispelled, misunderstanding corrected and questions answered. Effective communication is a prime responsibility of the enlisted leader. I ask that every petty officer and chief petty officer do their best to actively assist in improving communication within the enlisted community.



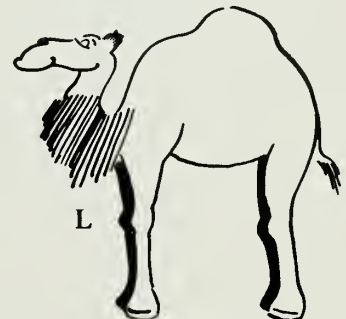
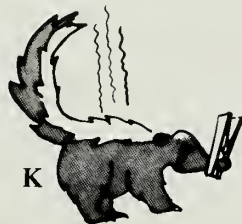
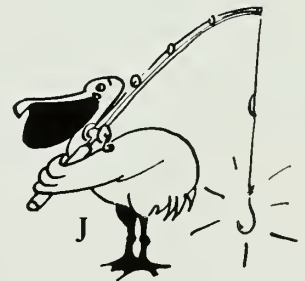
# Stern Shots



Since the days of sail, mariners have been trapped into catching sea bats, barked into bearing a hand at the sound of bull horns, or wiled into working at the wildcat. Fewer old salts can claim to have participated in dog fights or of being shellbacks or bluenoses. How many of you sea dogs can correctly match all of the following illustrations with their definitions?



- \_\_\_\_\_ 1. Unidentified surface contact
- \_\_\_\_\_ 2. Closed chock at the bow of a ship
- \_\_\_\_\_ 3. Name given to the 1600-1800 and the 1800-2000 watches
- \_\_\_\_\_ 4. A debt accrued by drawing advance pay
- \_\_\_\_\_ 5. Small, but strong, two-stranded tarred line
- \_\_\_\_\_ 6. Quick-release device used to secure anchor chain or towing cable
- \_\_\_\_\_ 7. A cluster or clump of pilings used for mooring
- \_\_\_\_\_ 8. Float used as a fender between two ships or a ship and a pier
- \_\_\_\_\_ 9. Steel fitting connecting a gaff, a yard or a derrick to a mast
- \_\_\_\_\_ 10. Float at the end of a minesweeping cable
- \_\_\_\_\_ 11. Conical metal shield secured around mooring lines
- \_\_\_\_\_ 12. Portable magnifying glass on a compass
- \_\_\_\_\_ 13. Underwater demolition personnel



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Answers: 1 (K-skunk); 2 (F-bull nose); 3 (M-dog watch); 4 (E-dead horse); 5 (I-marlin); 6 (J-pelican hook); 7 (C-dolphin); 8 (L-camel); 9 (D-geese neck); 10 (A-pig); 11 (H-rat guard); 12 (B-spider); 13 (G-frogmen).



# THE DESERT NAVY

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